

Figure 1a: C. Adachi, et. al.

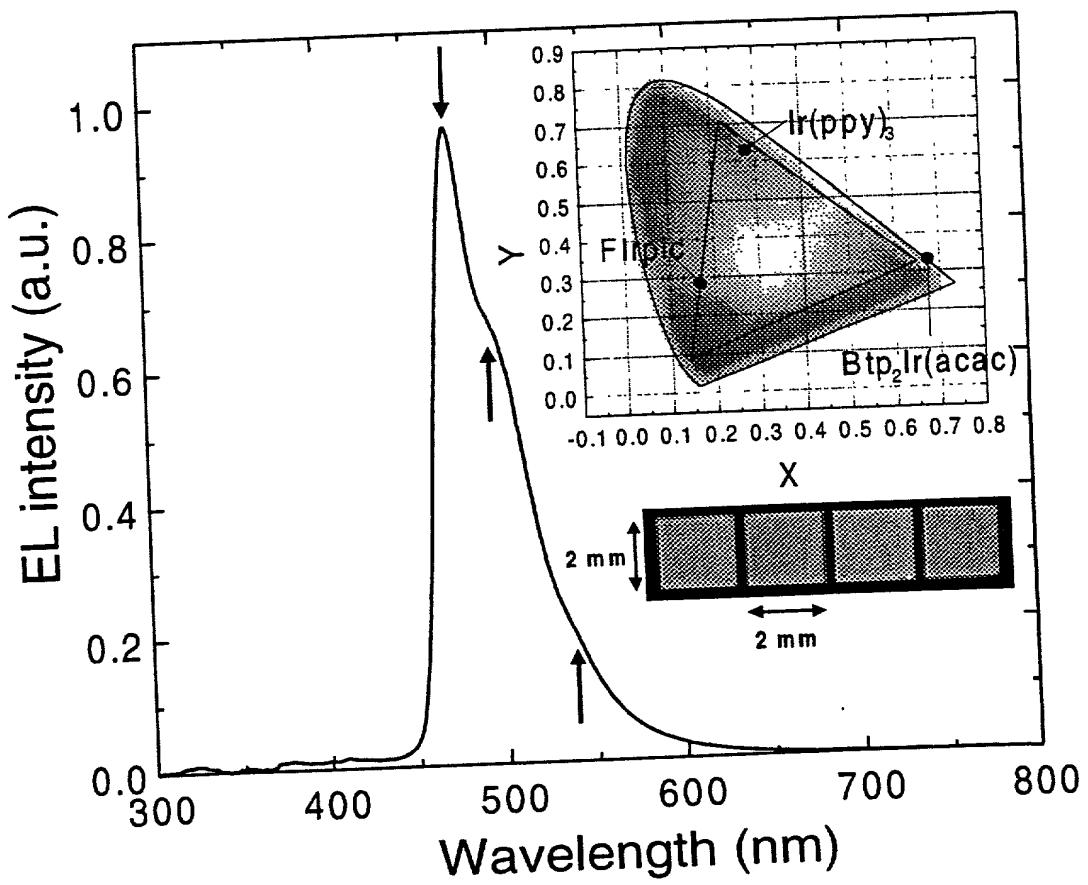


Figure 1b: C. Adachi, et. al.

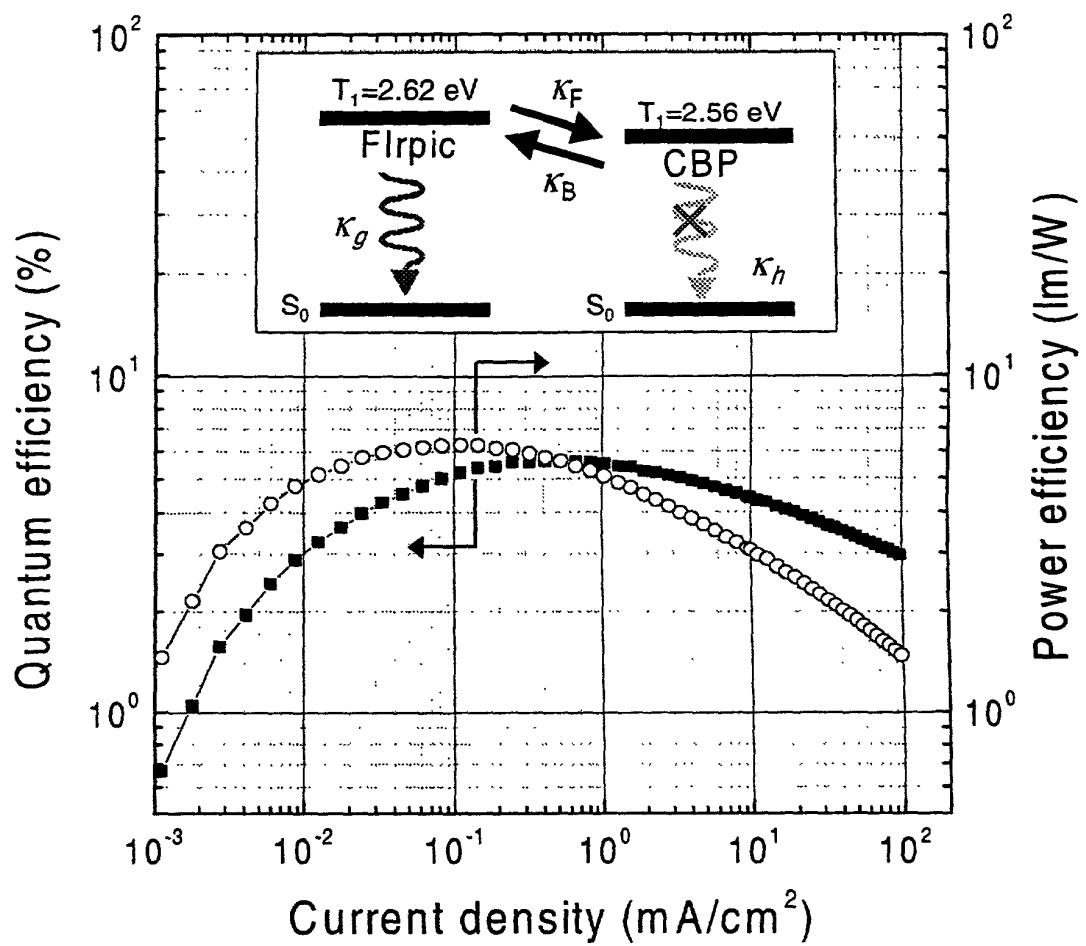
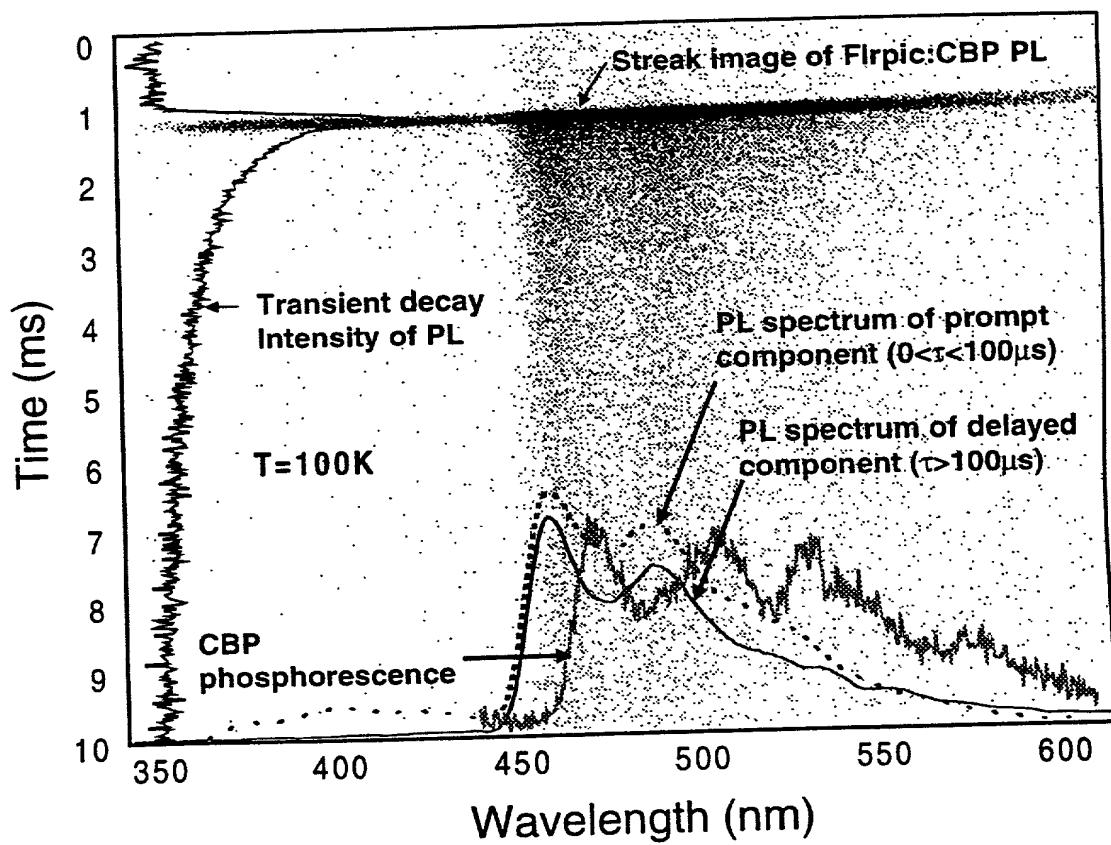


Figure 2: C. Adachi, et.al.



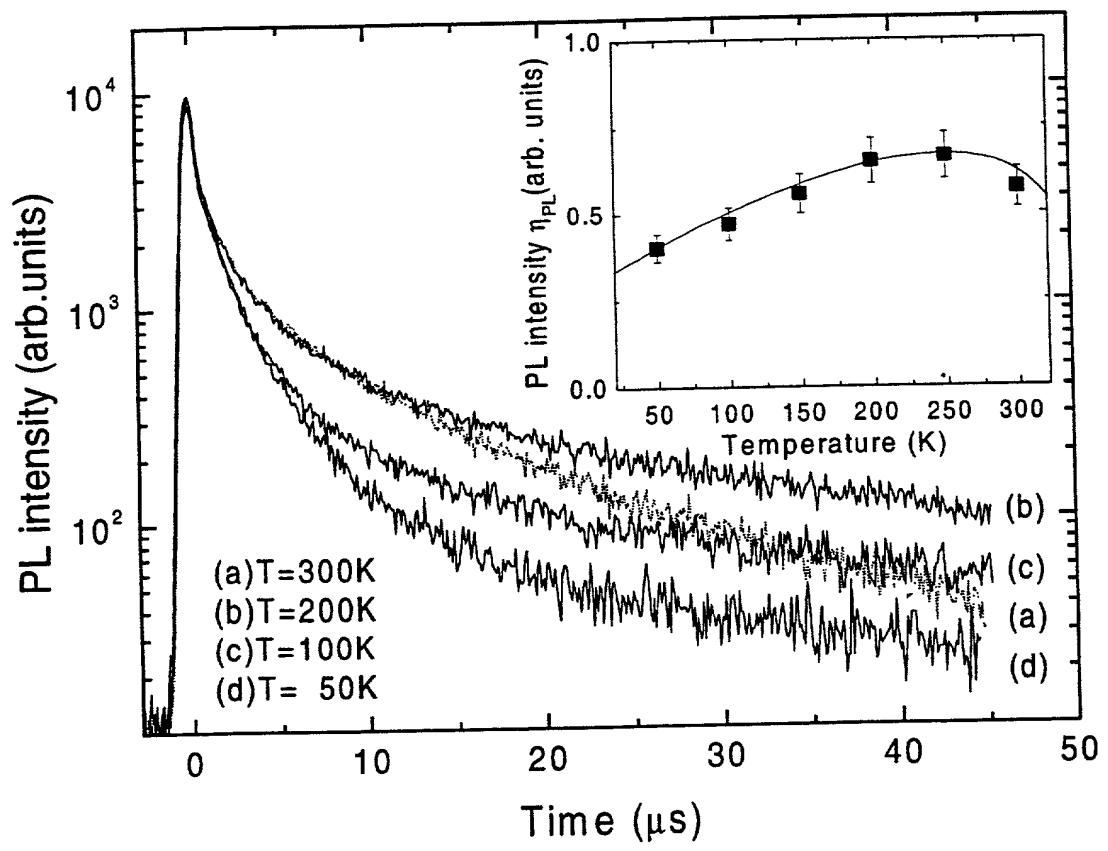
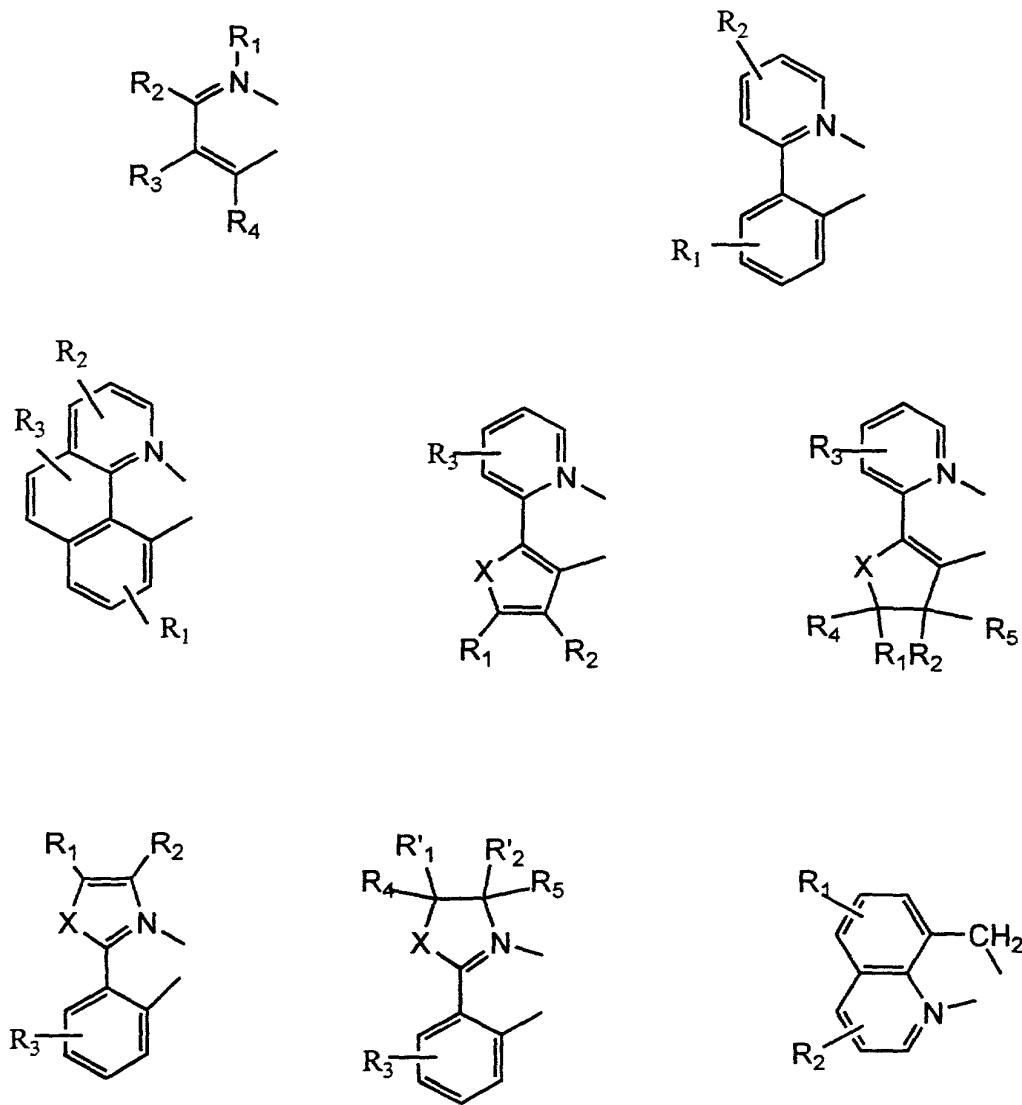


Figure 4: C. Adachi, et.al.

Figure 50

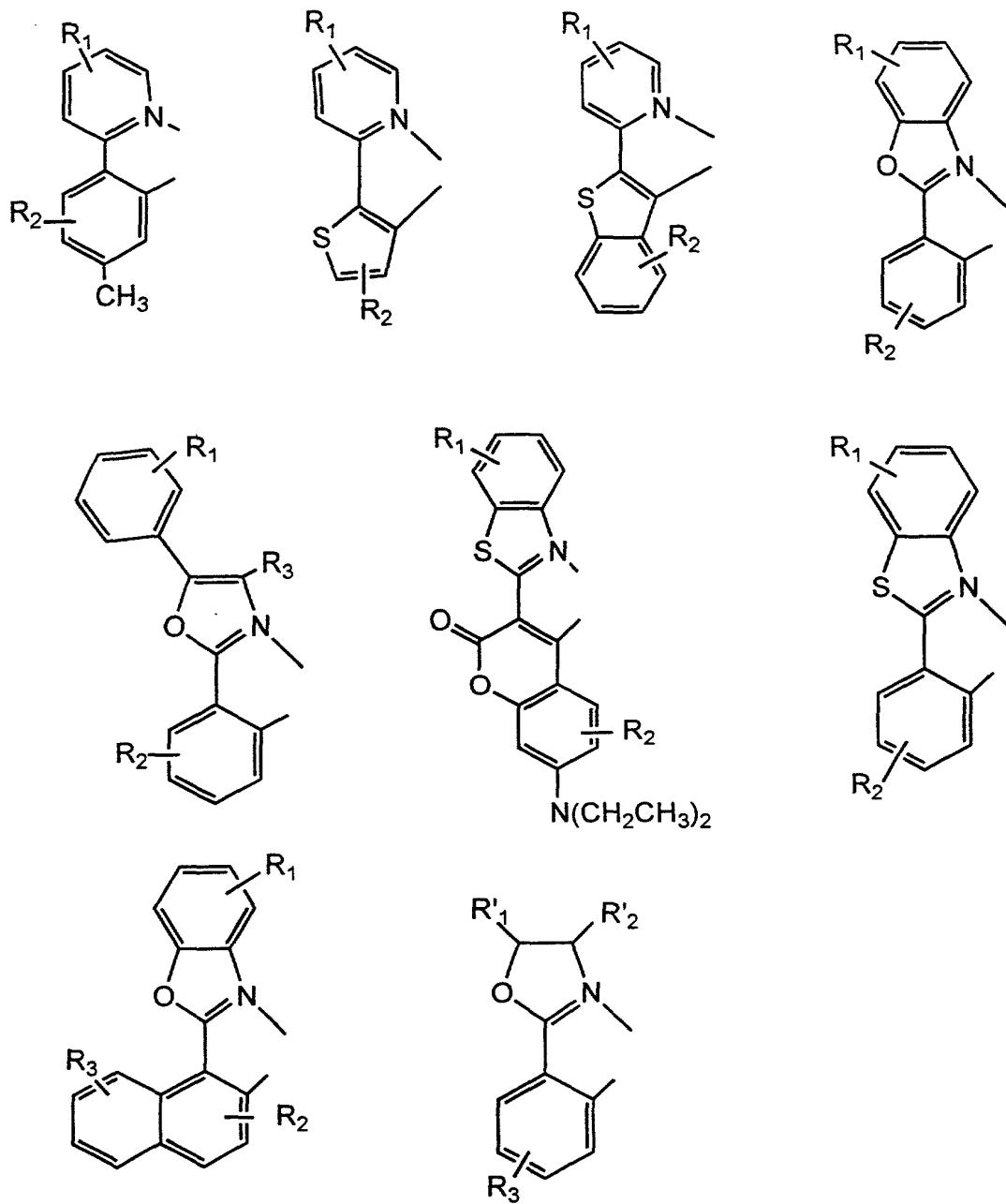
Generic Mono-Anionic, Bidentate, Carbon-Coordination Ligands-I



X = S, O, NR; and R₁, R₂, R₃, R₄ and R₅ are, independently, hydrogen, halogen, alkyl, aryl or arylene; and R'₁ and R'₂ may, in combination, be aryl.

Figure 5b

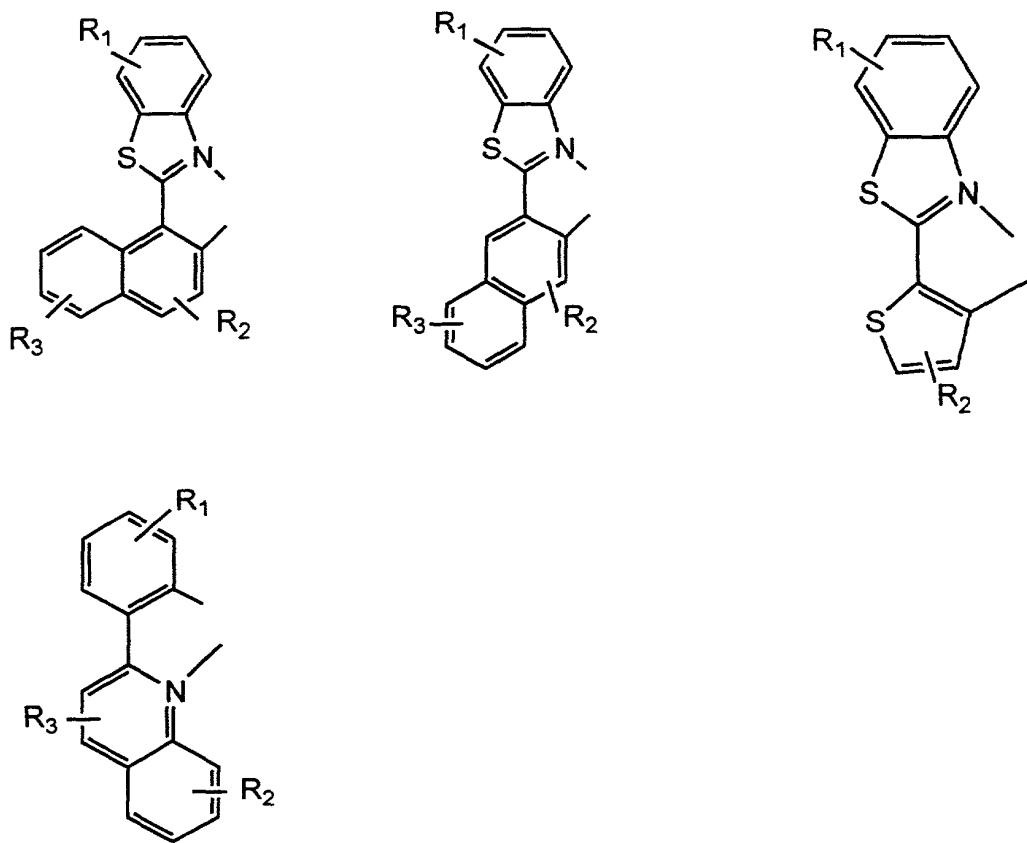
Generic Mono-Anionic, Bidentate, Carbon-Coordination Ligands-II



X = S, O, NR; and R₁, R₂, R₃, R₄ and R₅ are, independently, hydrogen, halogen, alkyl, aryl or arylene; and R'₁ and R'₂ may, in combination, be aryl.

Figure 5c

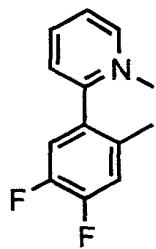
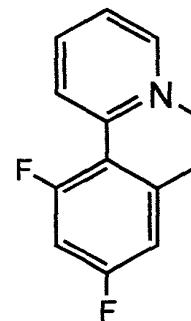
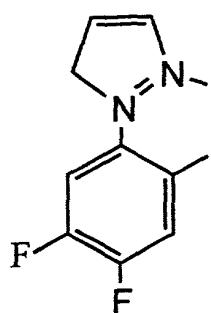
Generic Mono-Anionic, Bidentate, Carbon-Coordination Ligands-III



X = S, O, NR; and R₁, R₂, R₃, R₄ and R₅ are, independently, hydrogen, halogen, alkyl, aryl or arylene.

Figure 5d

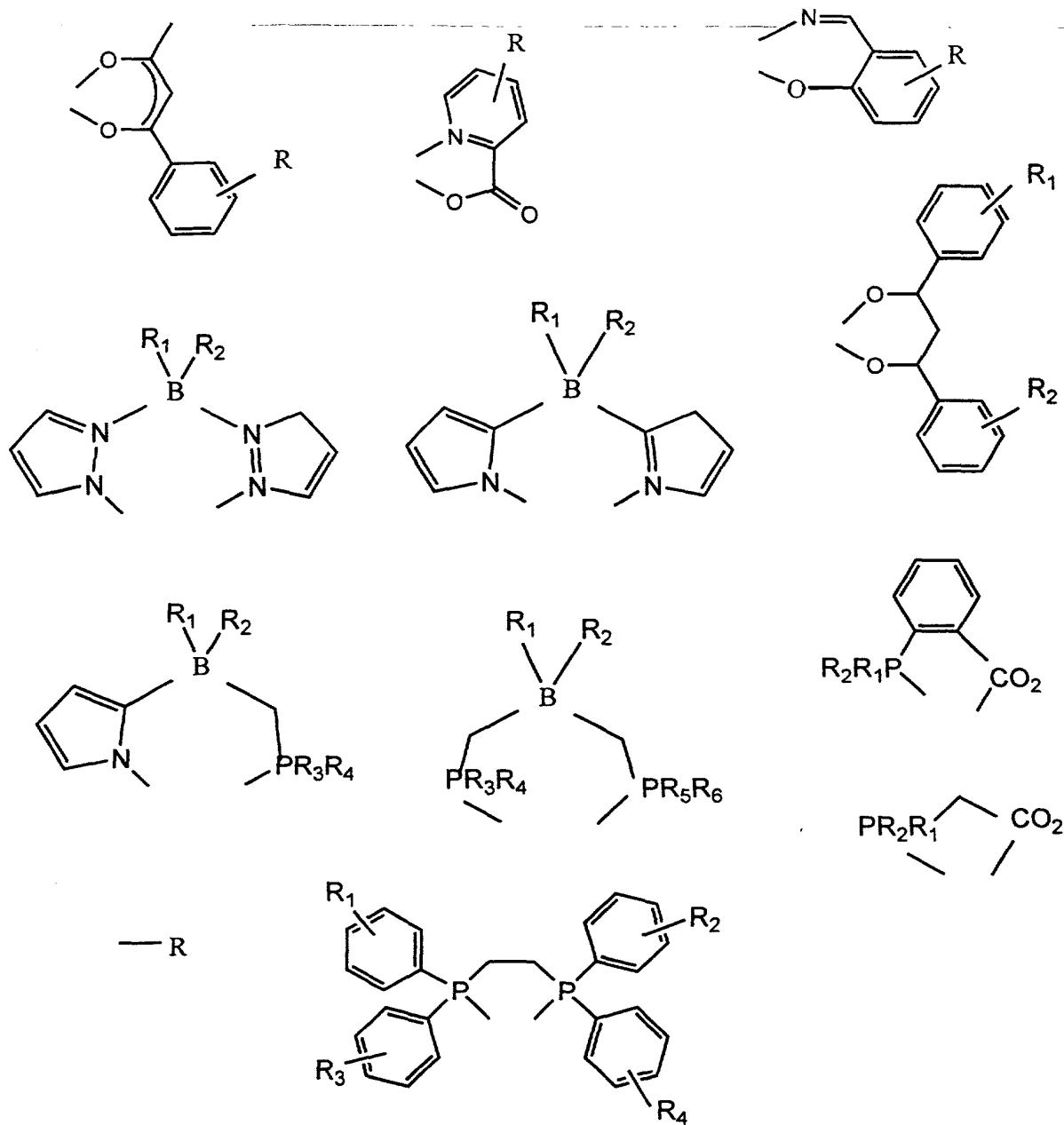
Specific Mono-Anionic, Bidentate, Carbon-Coordination Ligands-I



UDC Proprietary and Confidential

Figure 6a

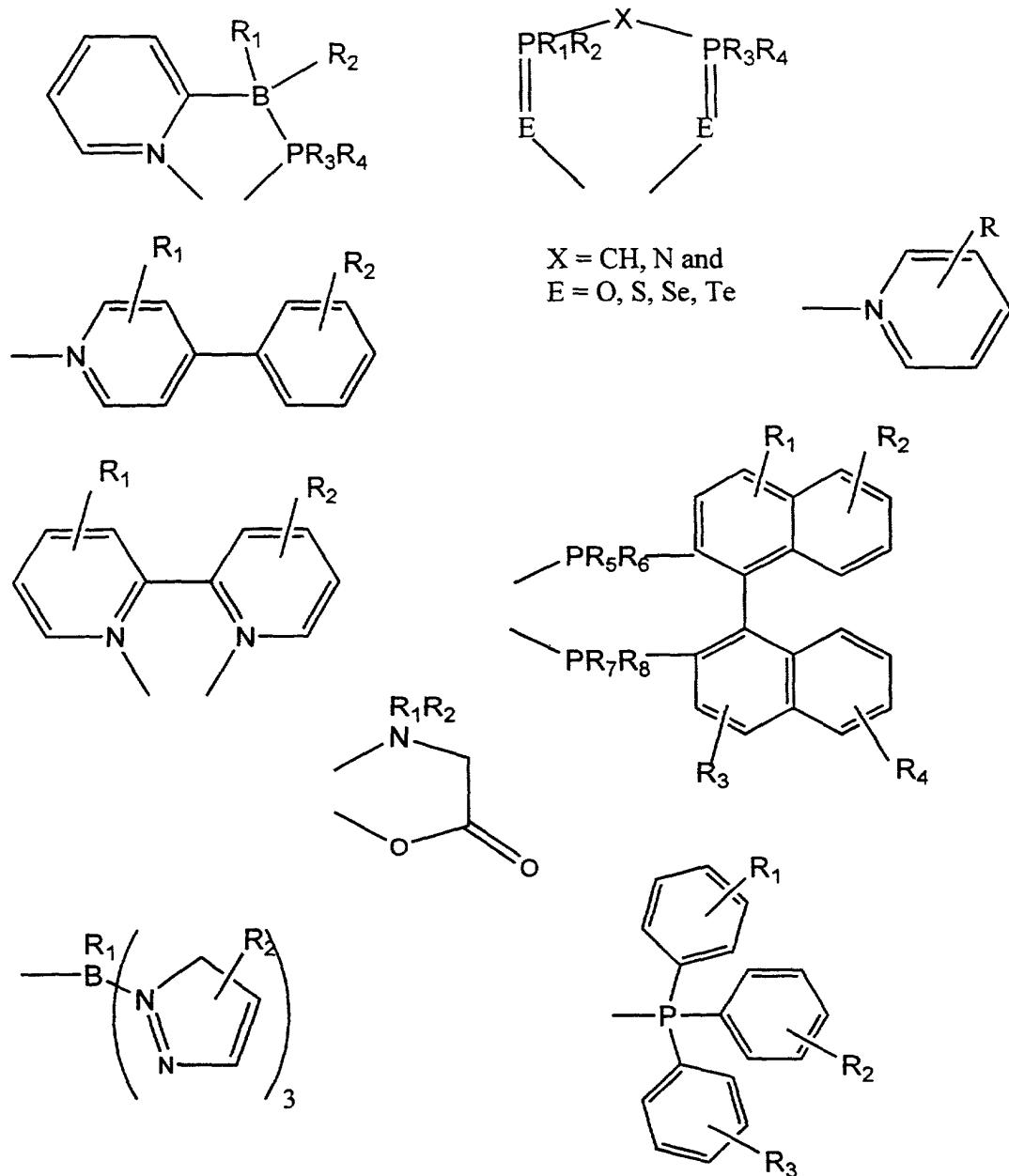
Generic Non-Mono-Anionic, Bidentate, Carbon-Coordination Ligands-I



R , R_1 , R_2 , R_3 , R_4 , R_5 , and R_6 are, independently, hydrogen, halogen, alkyl or aryl.

Figure 6b

Generic Non-Mono-Anionic, Bidentate, Carbon-Coordination Ligands-II



$\text{R, R}_1, \text{R}_2, \text{R}_3, \text{R}_4, \text{R}_5, \text{R}_6, \text{R}_7$ and R_8 are, independently, hydrogen, halogen, alkyl or aryl.

Figure 6c

Specific Non-Mono-Anionic, Bidentate, Carbon-Coordination Ligands

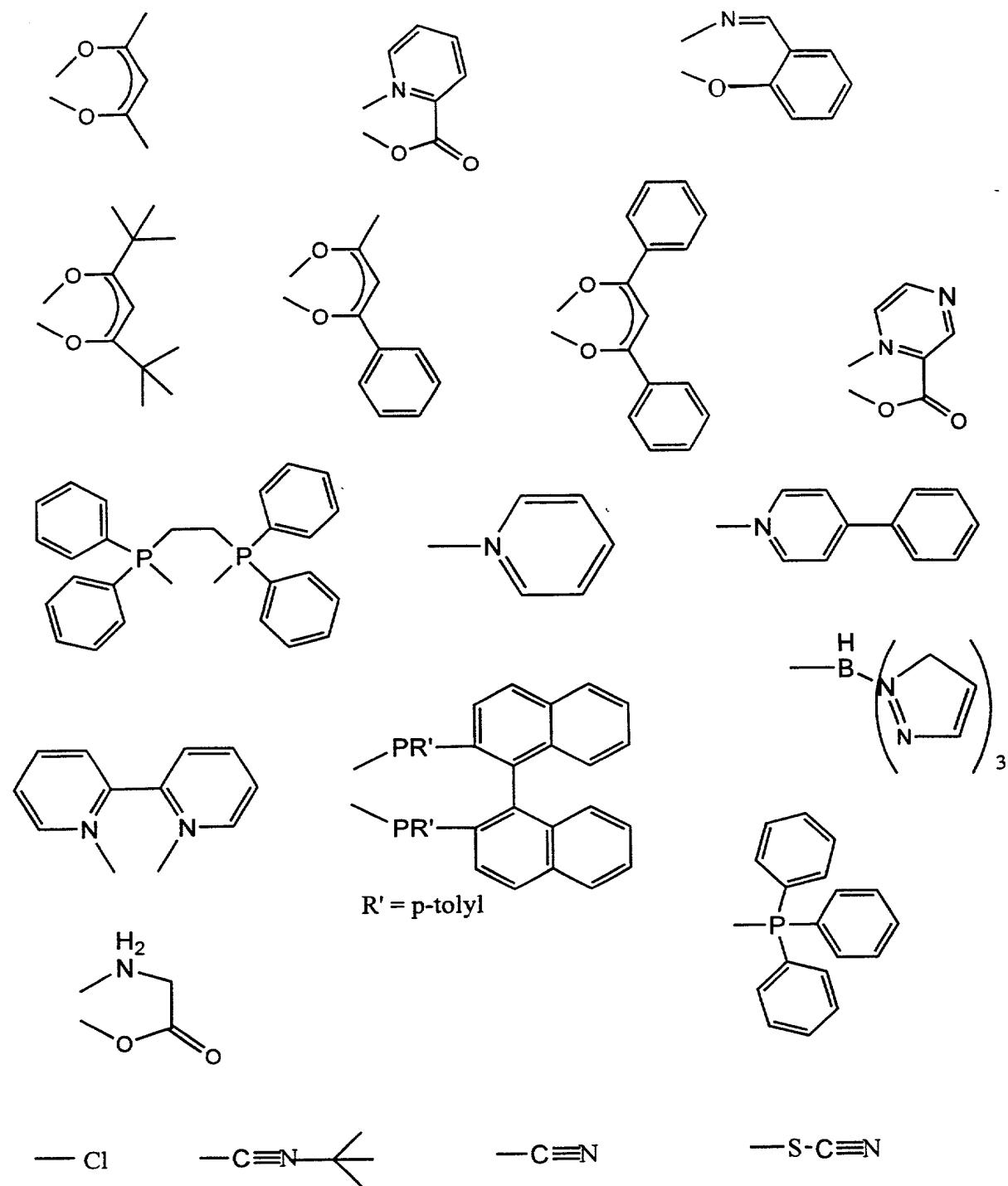


Figure 7a

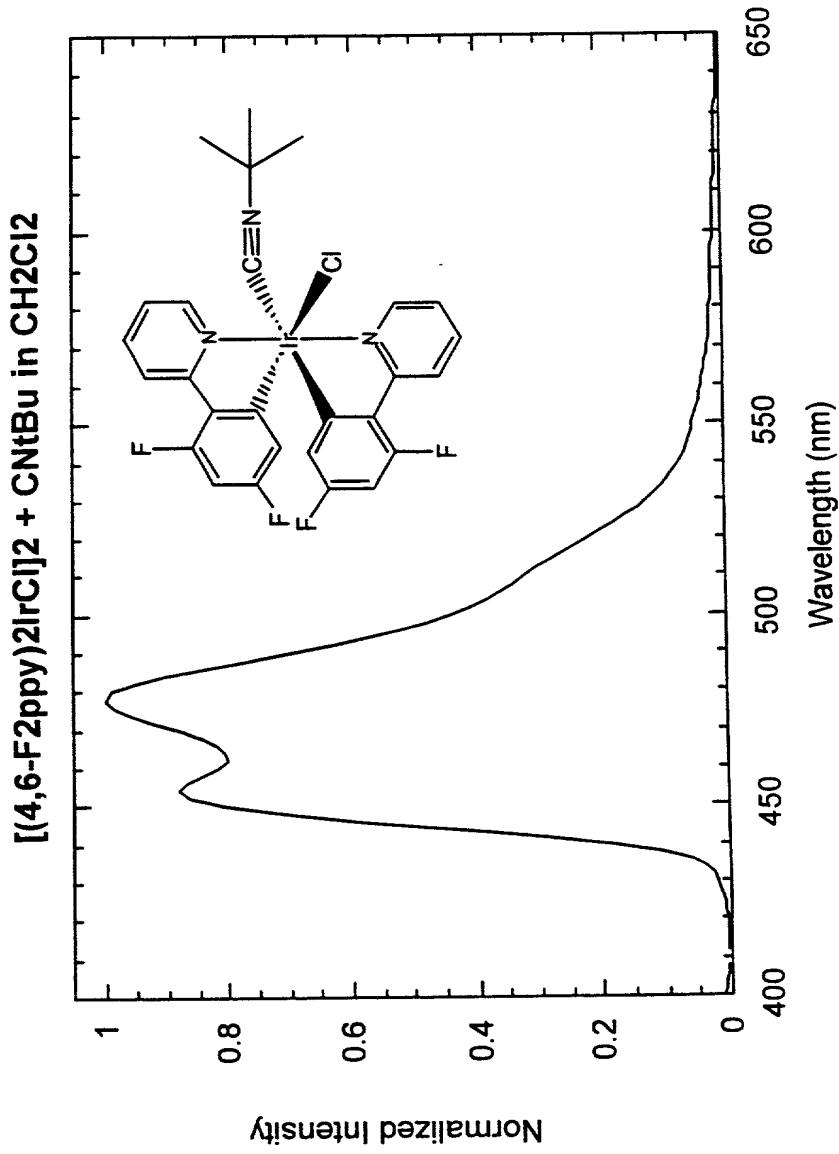


Figure 7b

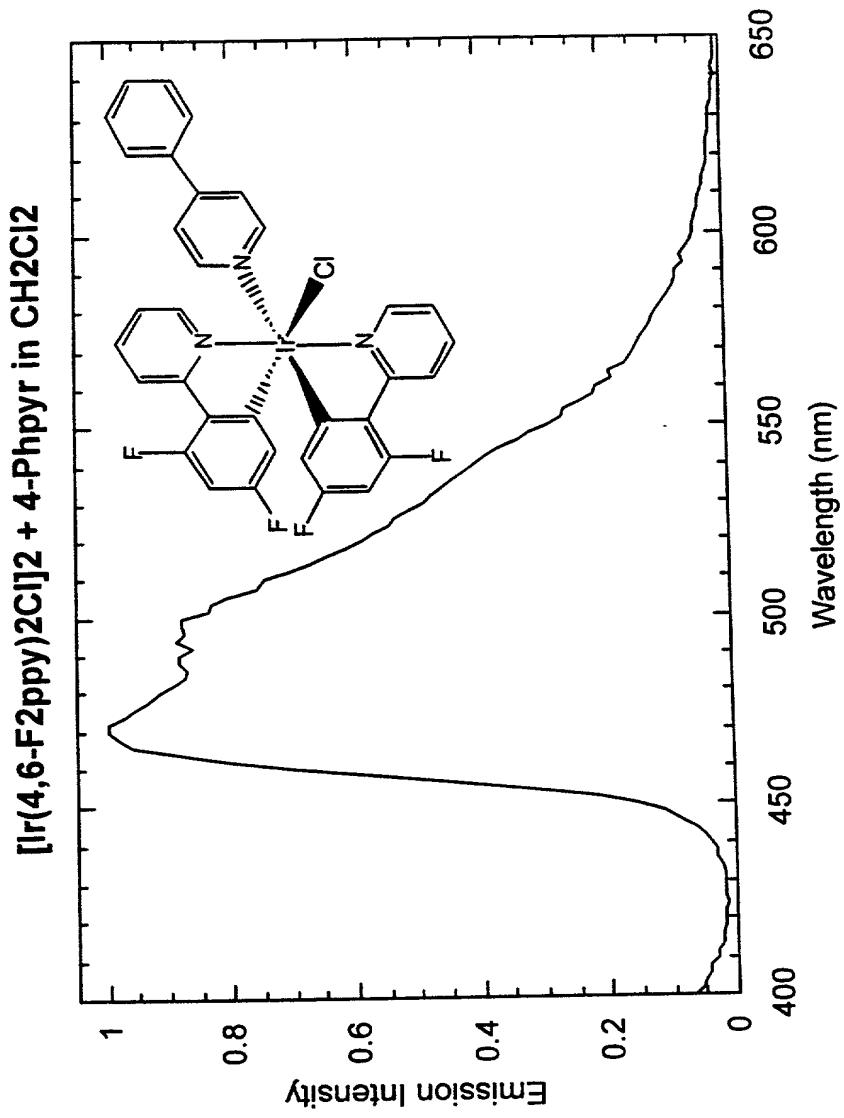


Figure 7c

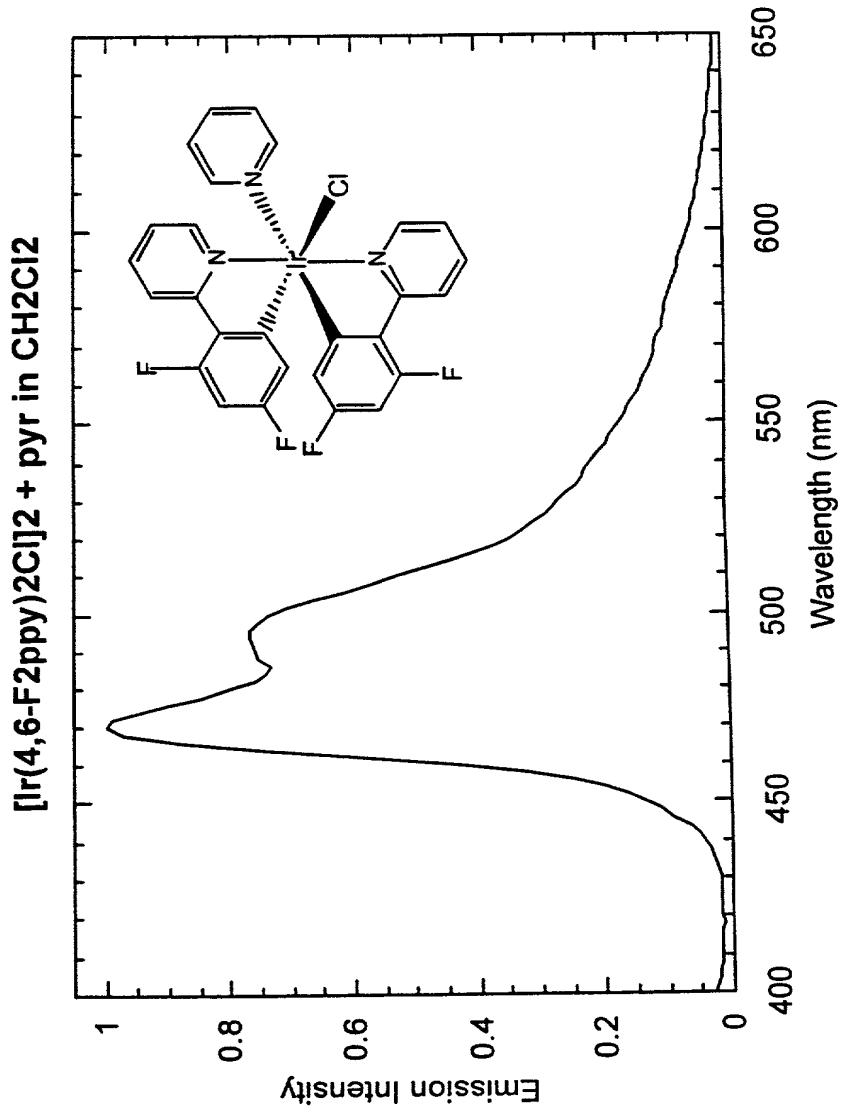


Figure 7d

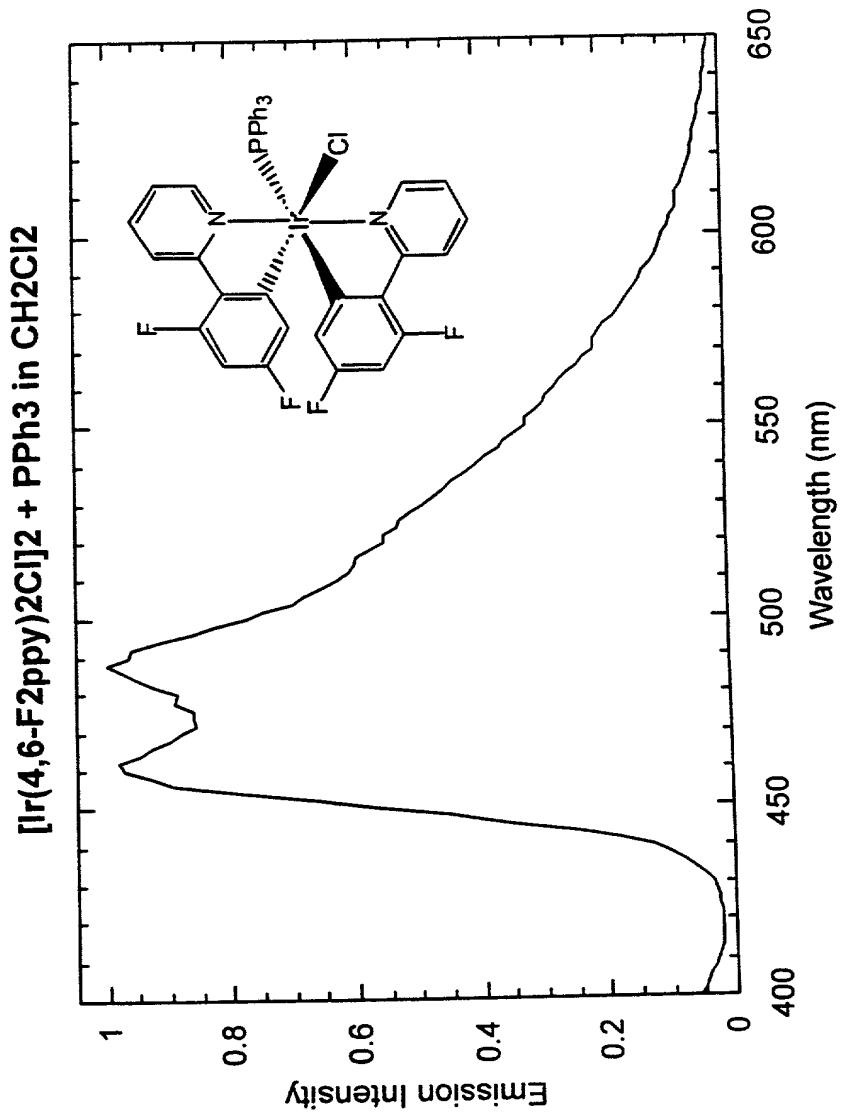


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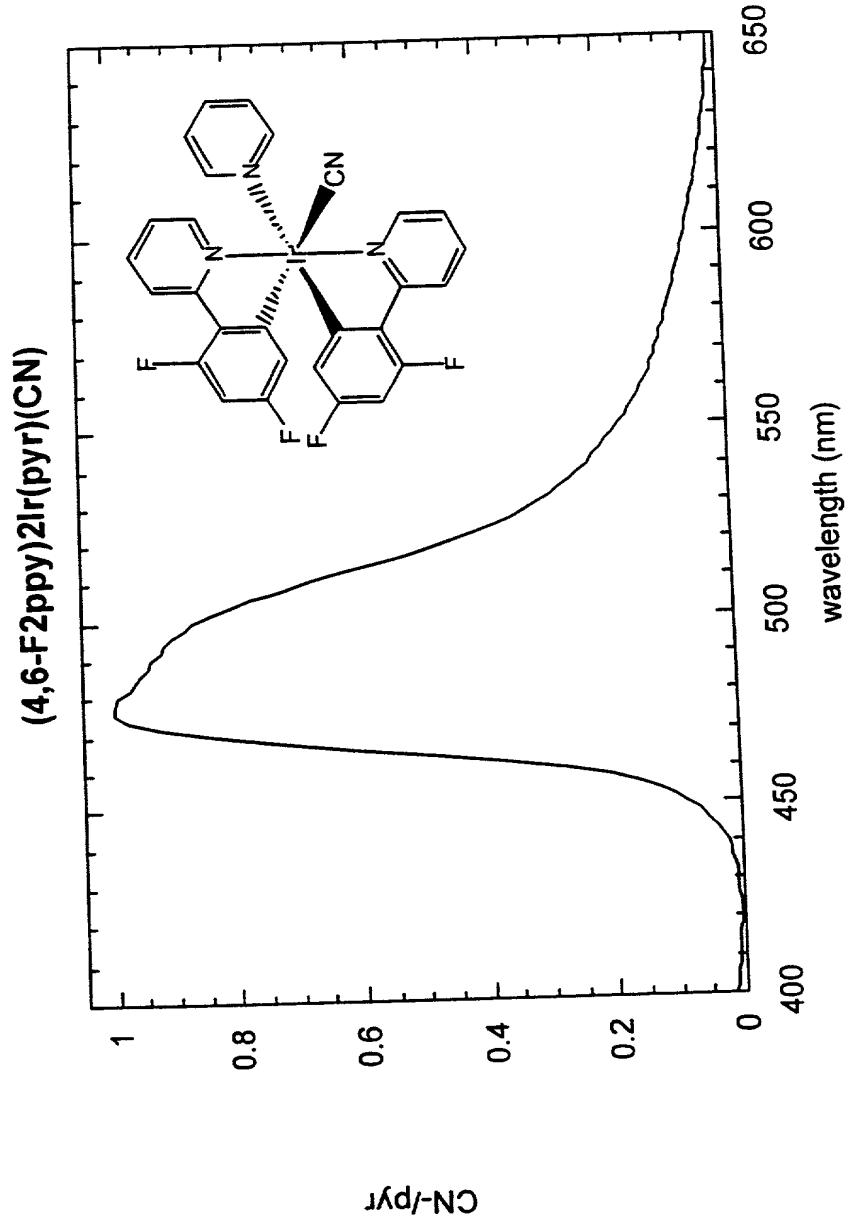


figure 7f

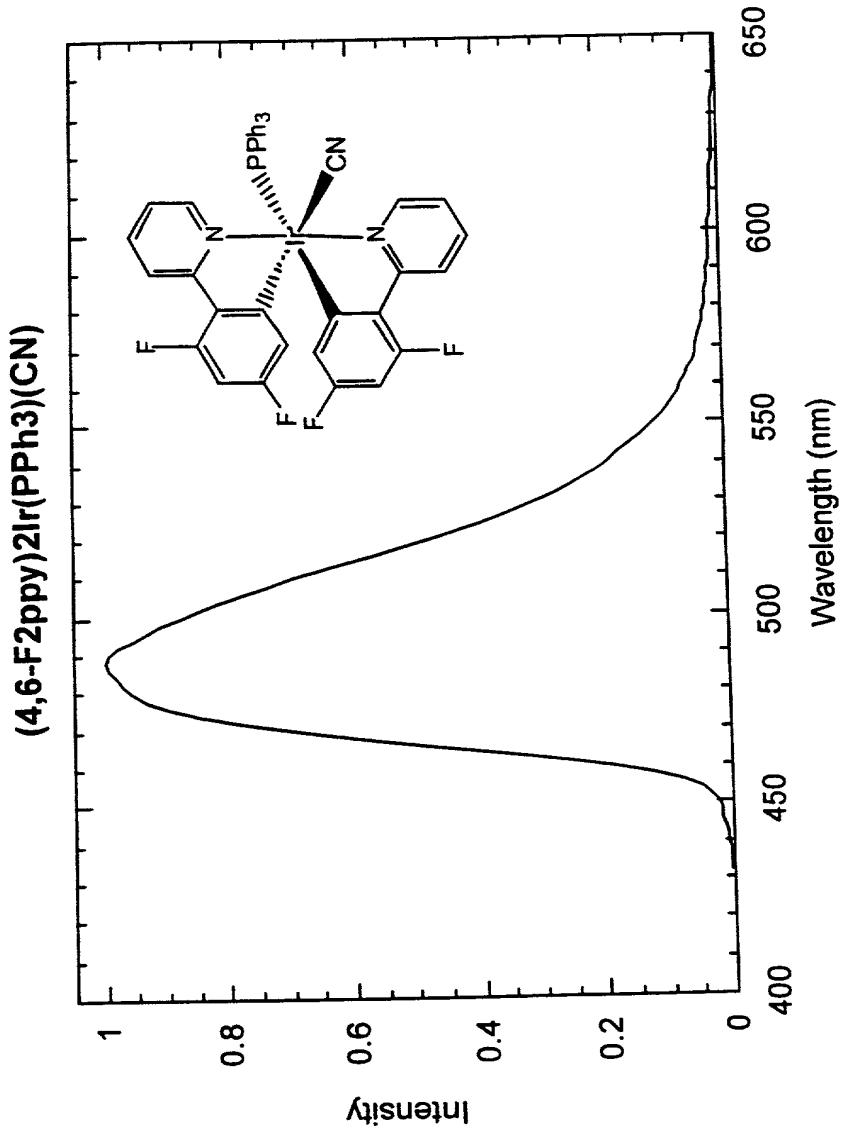


Figure 7g

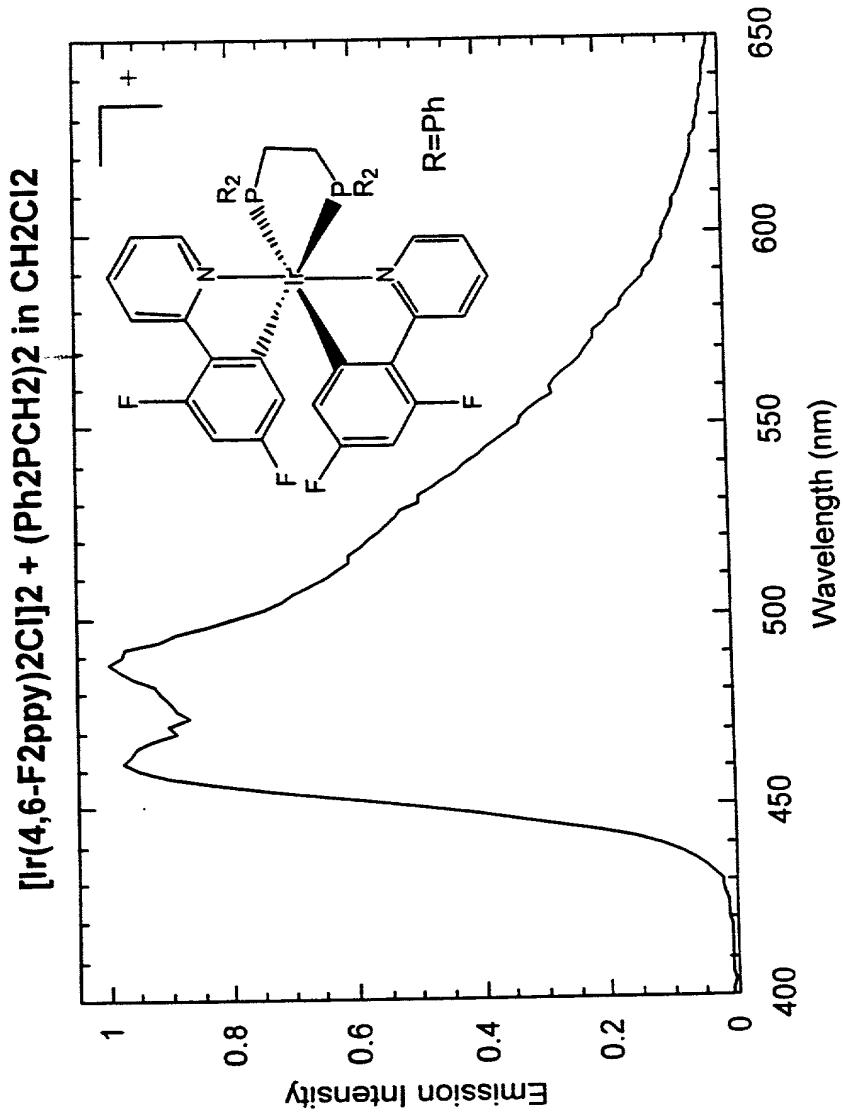


Figure 7h

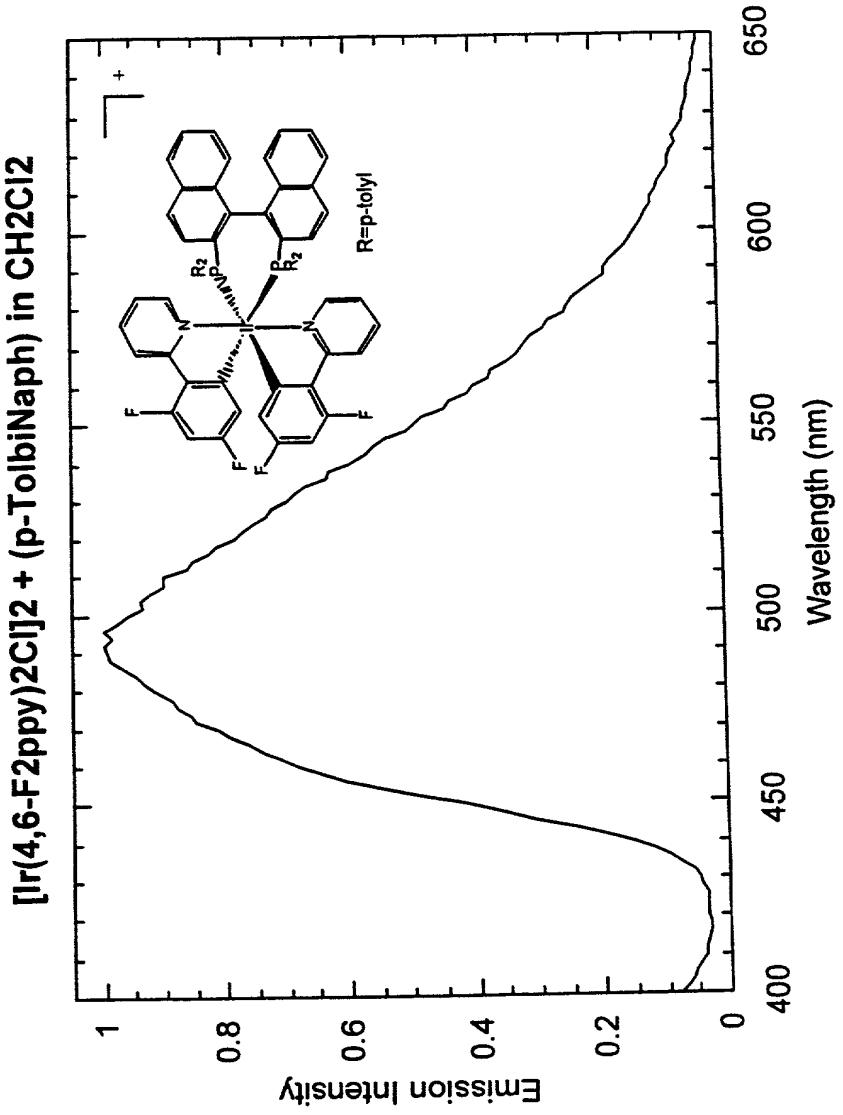


Figure 7i

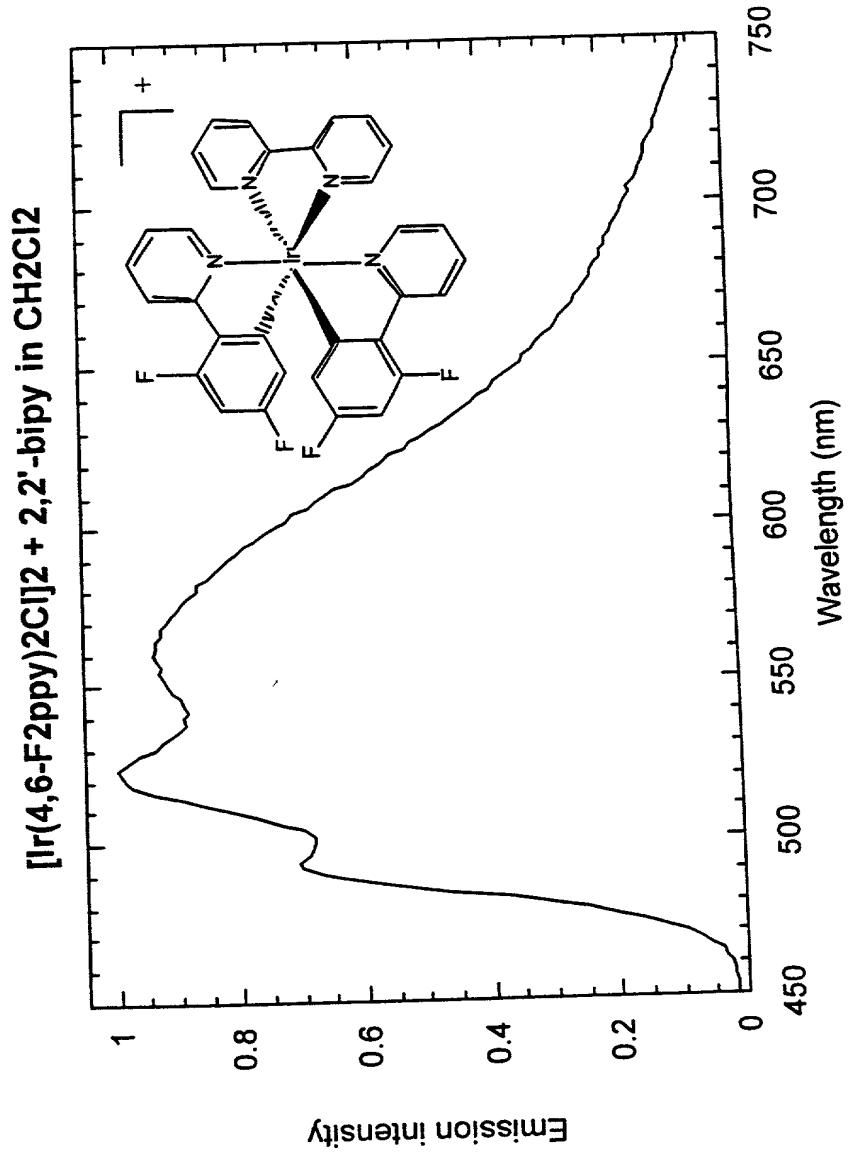


Figure 7j

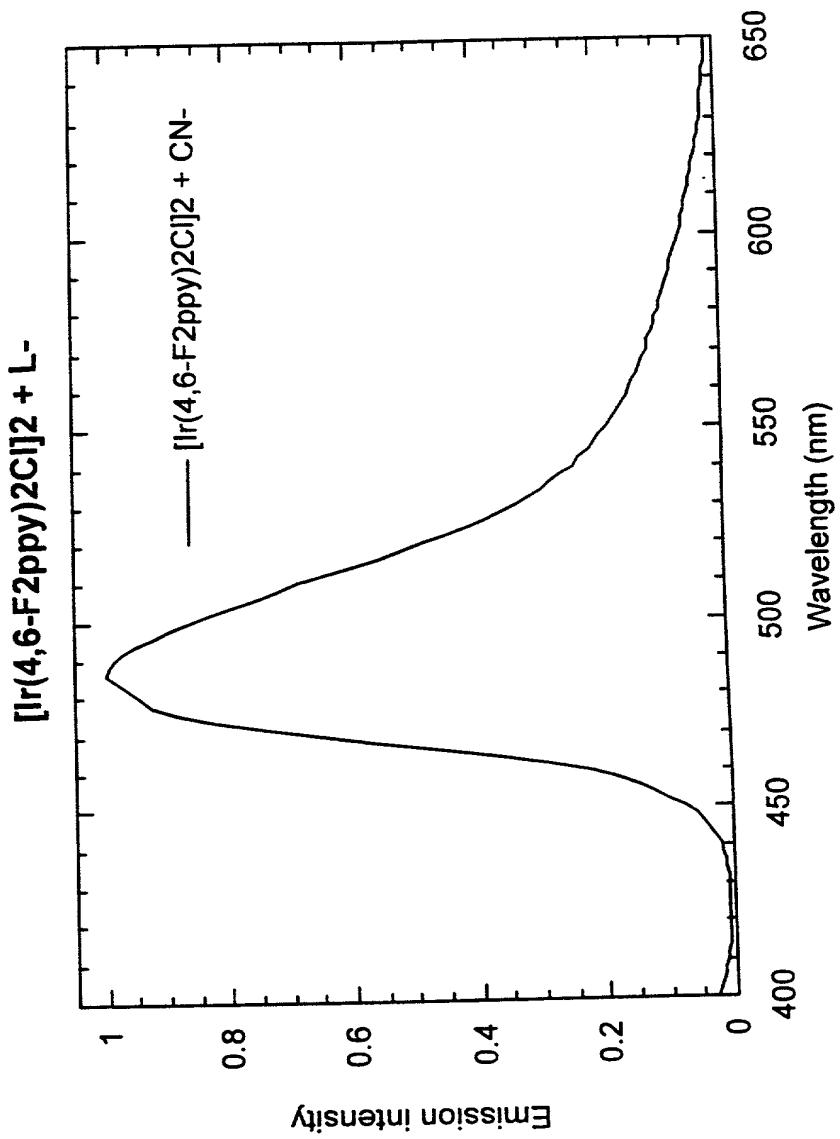


Figure 7k

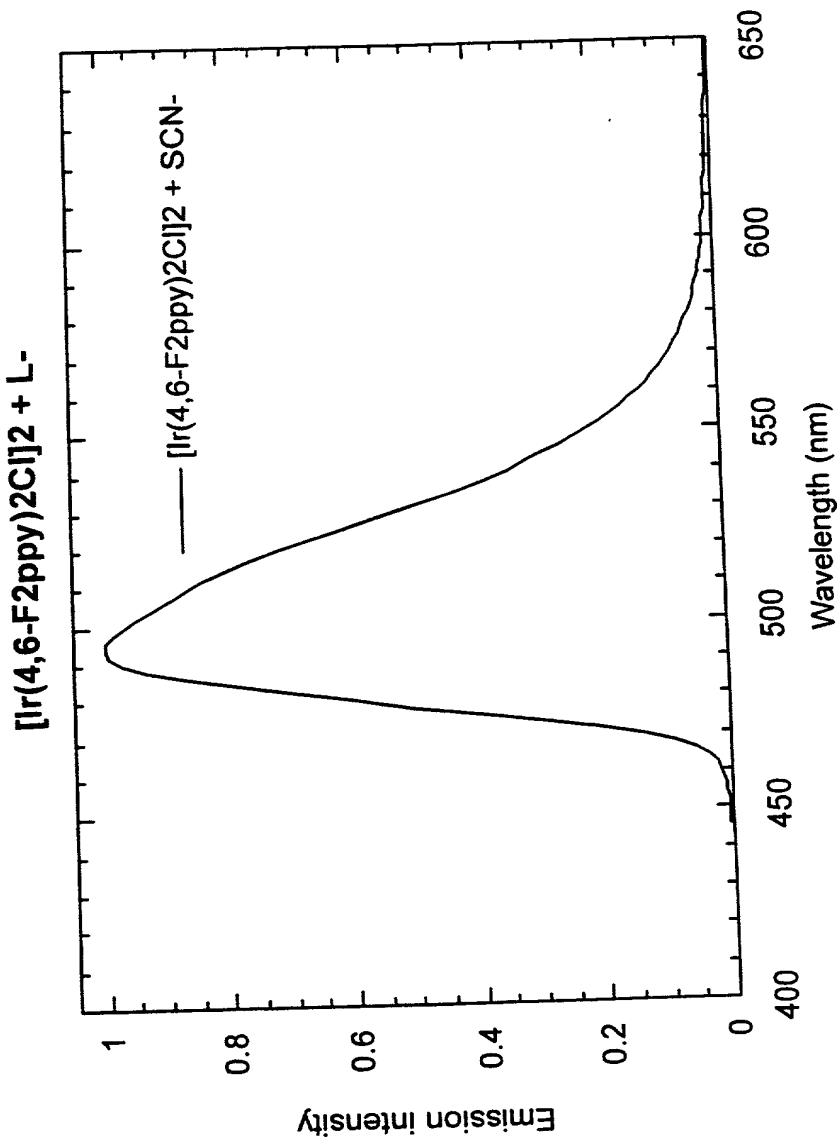


Figure 71

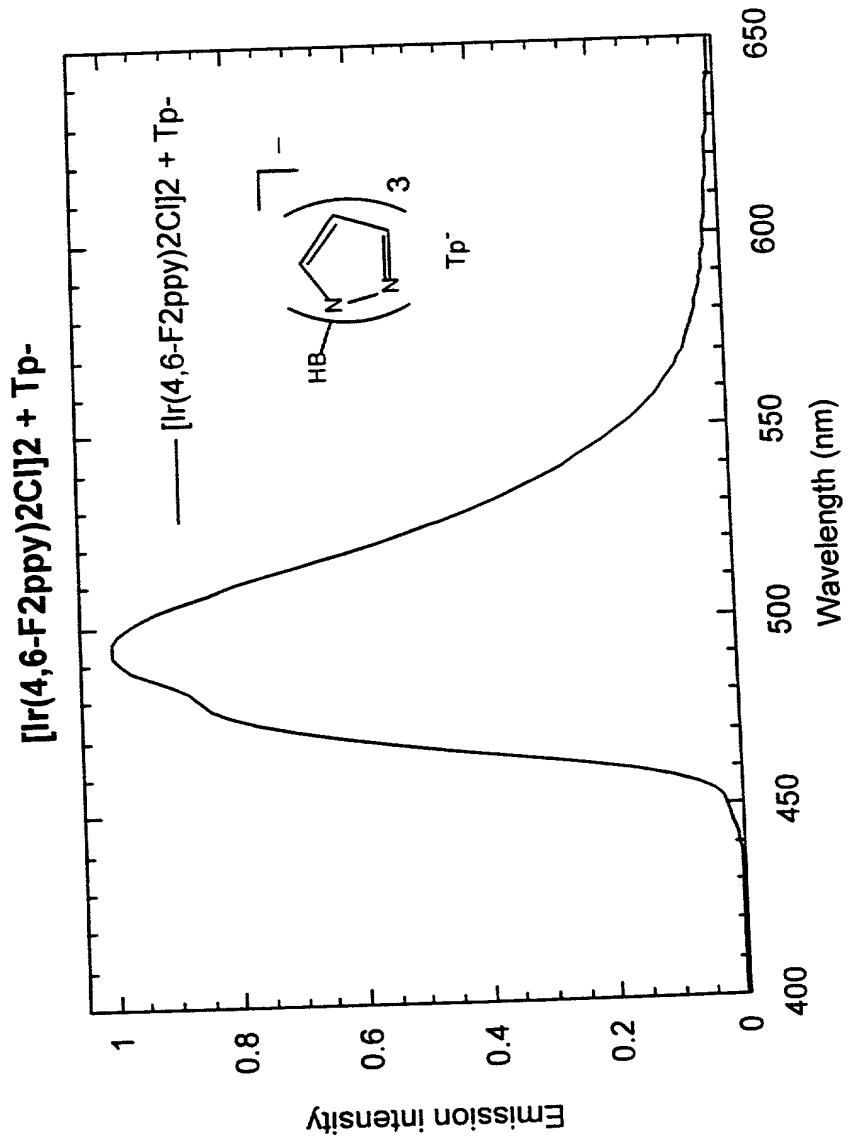


figure 7m

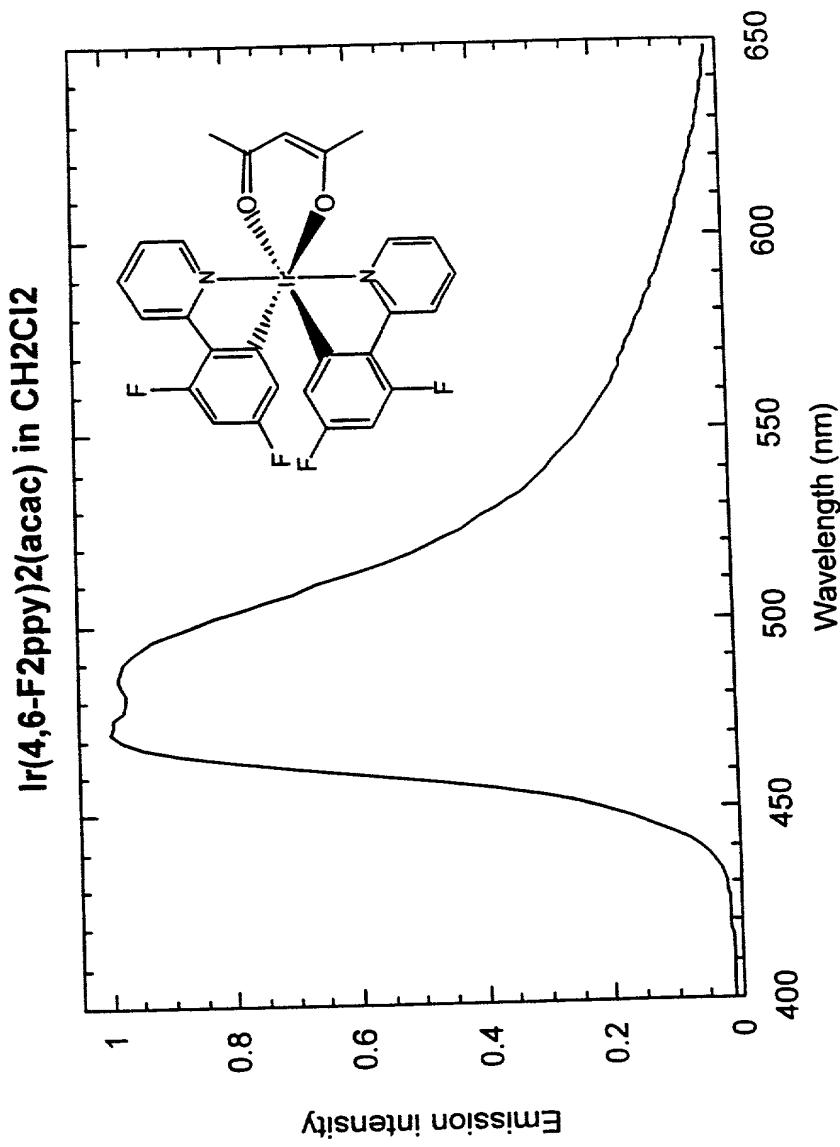


Figure 7n

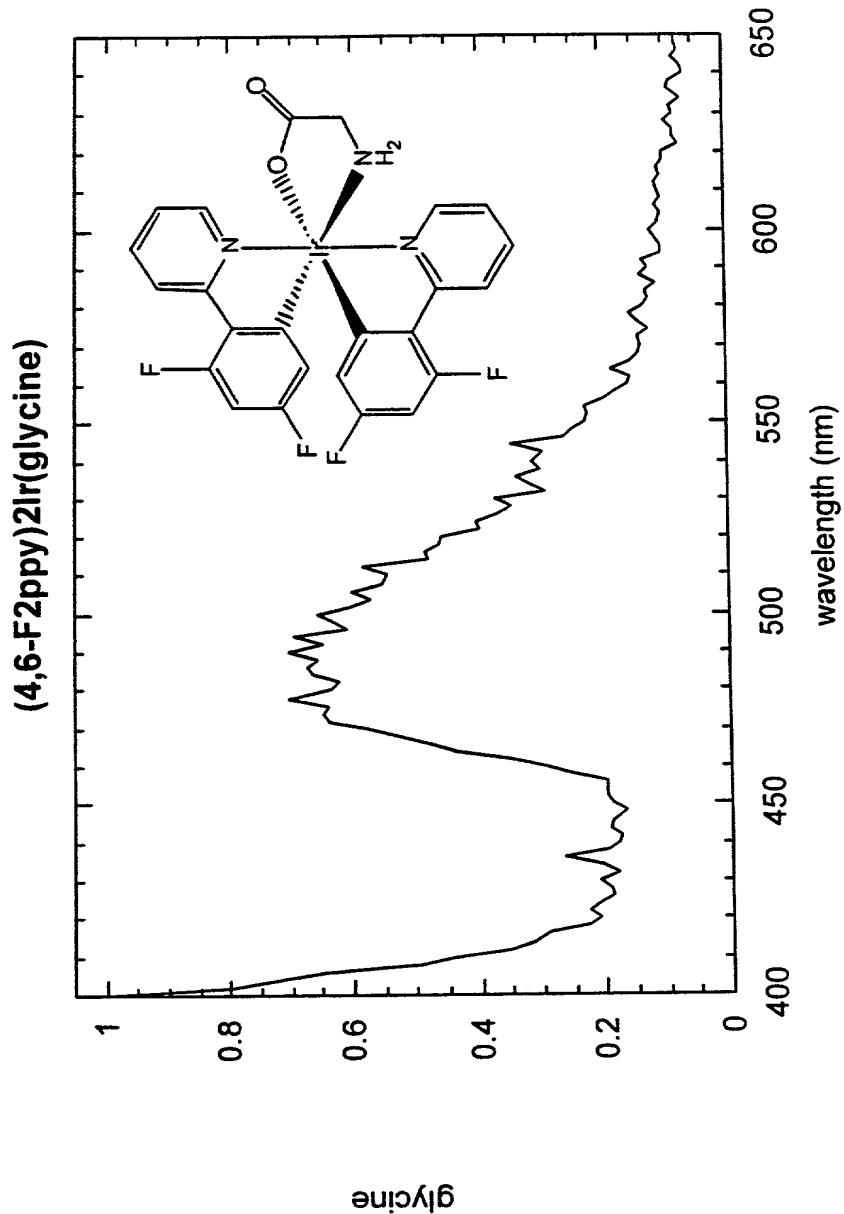


Figure 7o

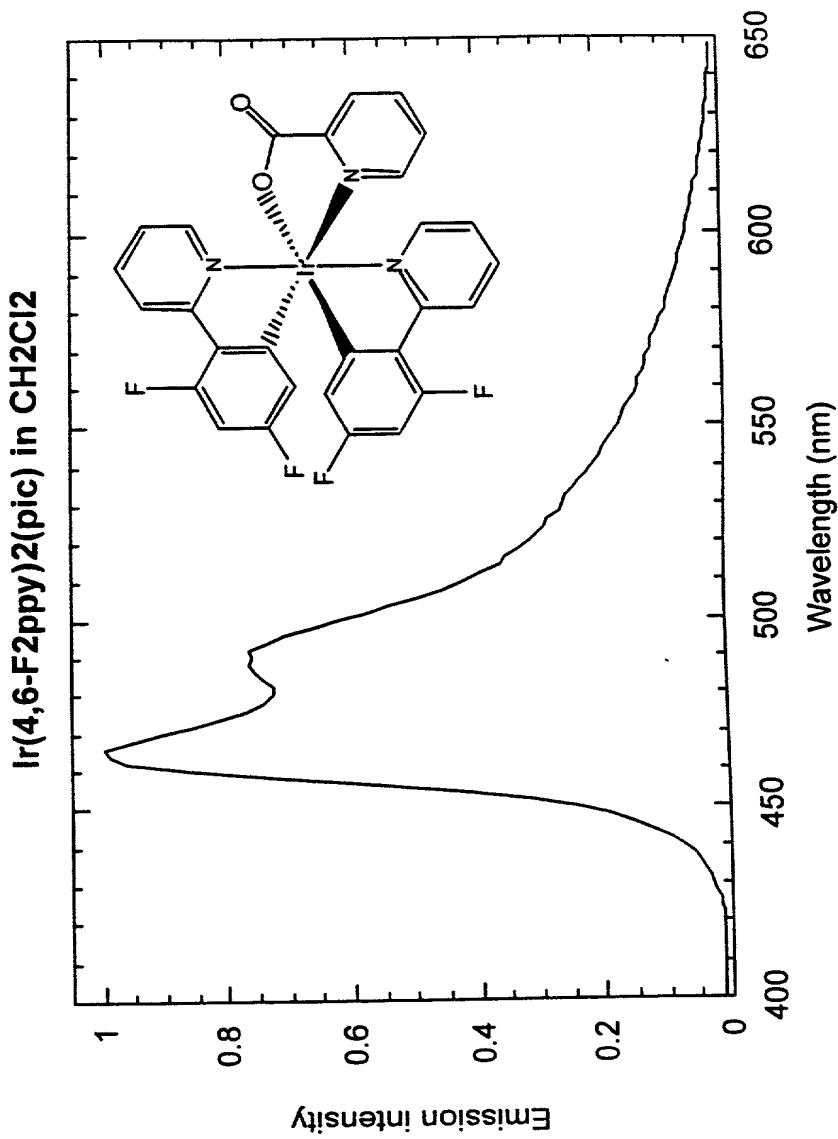


Figure 7p

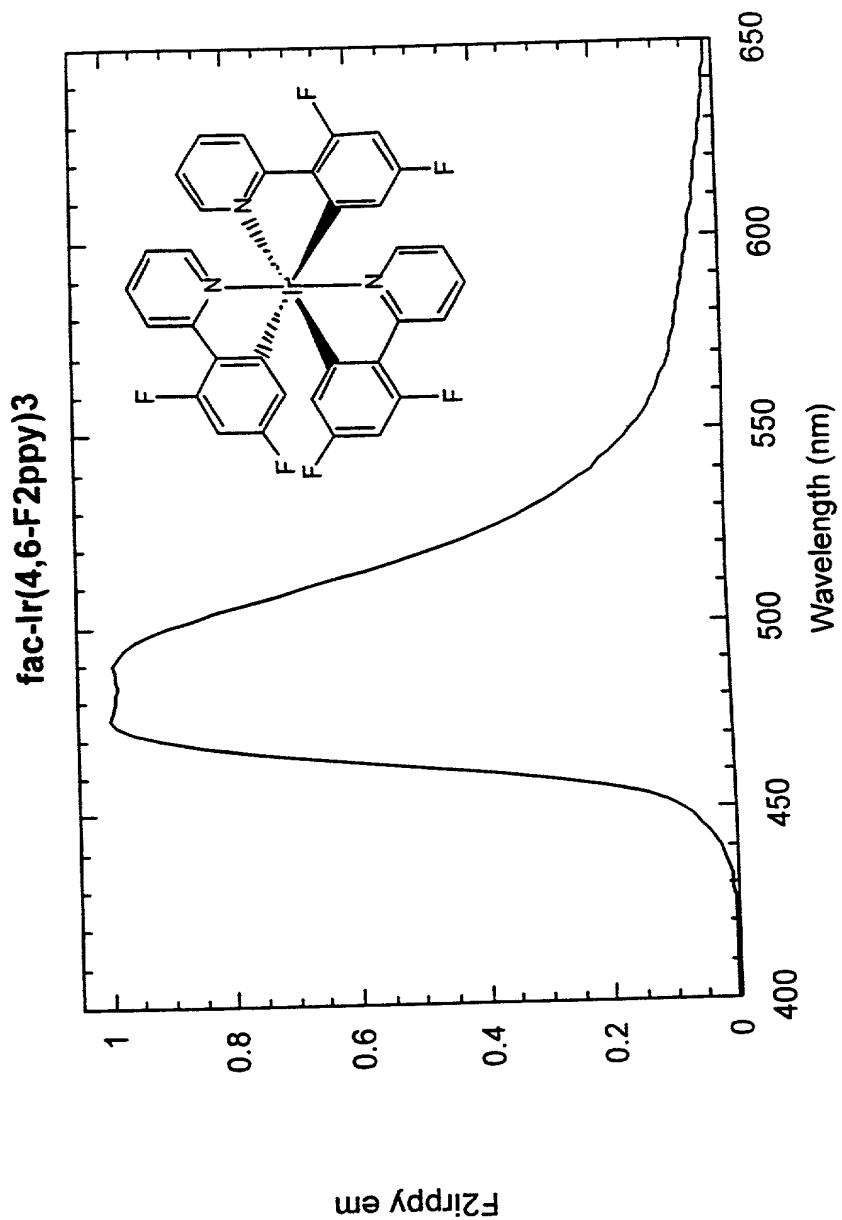


Figure 7q

$[\text{Ir}(4,6\text{-F}_2\text{ppy})_2\text{Cl}]_2 + \text{pyrzCO}_2\text{H}$ in CH_2Cl_2

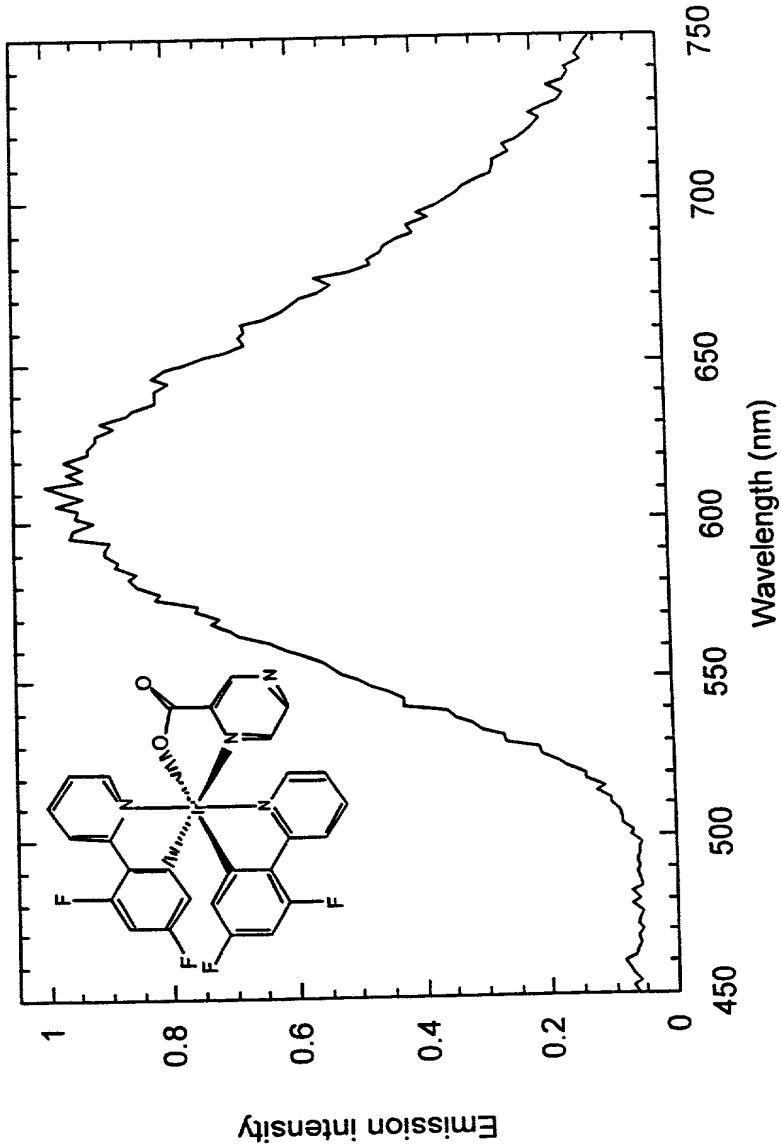


Figure 7r

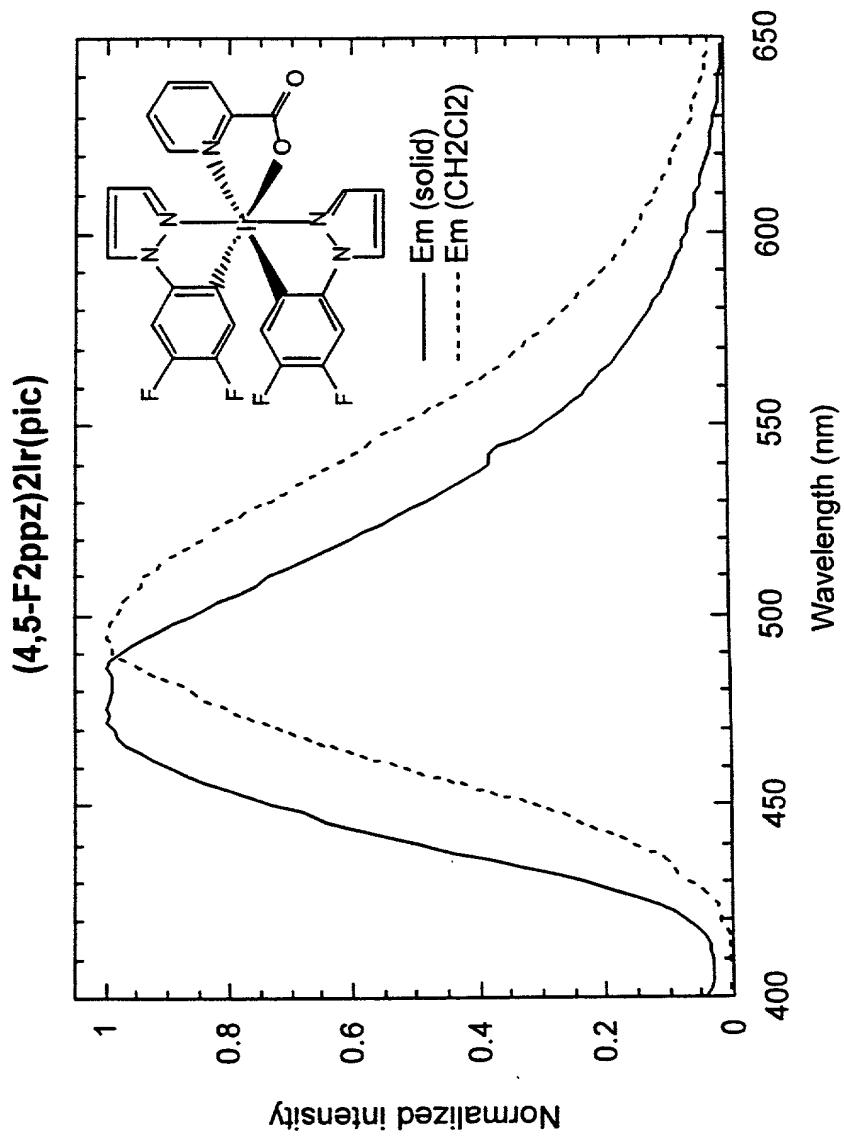
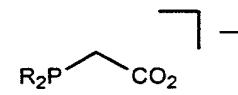
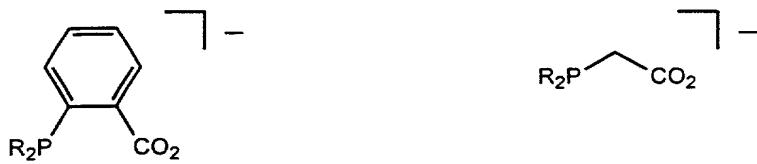
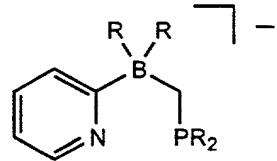
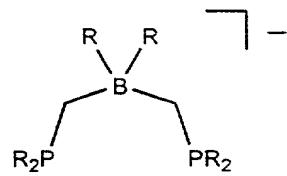


Figure 8a



$\text{X}=\text{CH, N}$
 $\text{E}=\text{O, S, Se, Te}$

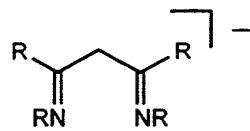


Figure 8c

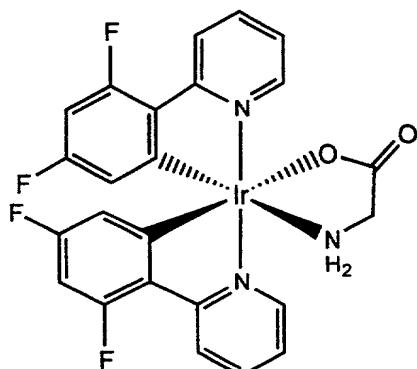
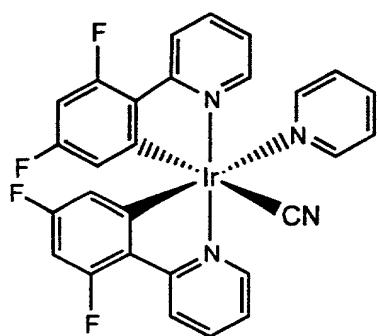
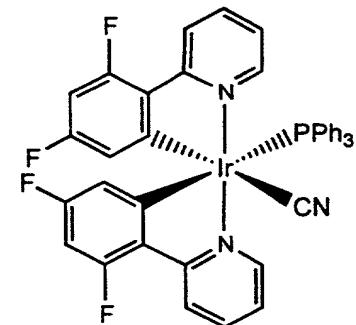
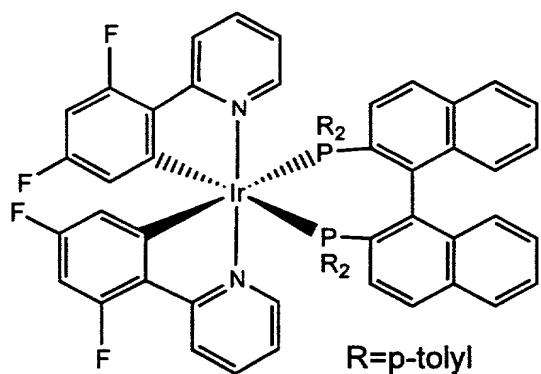
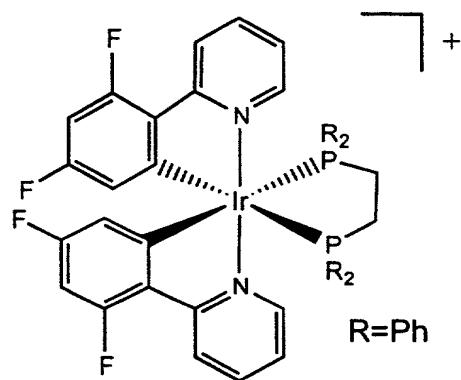
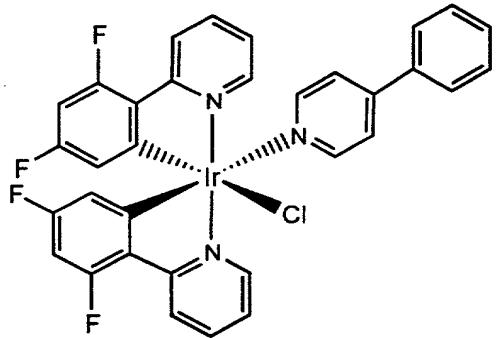
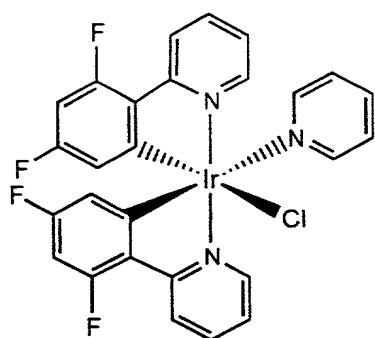
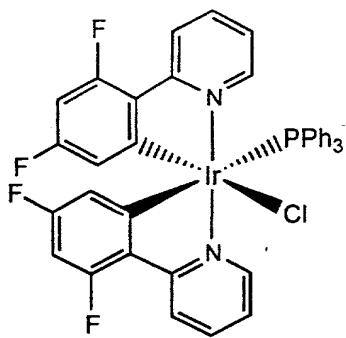


Figure 8c

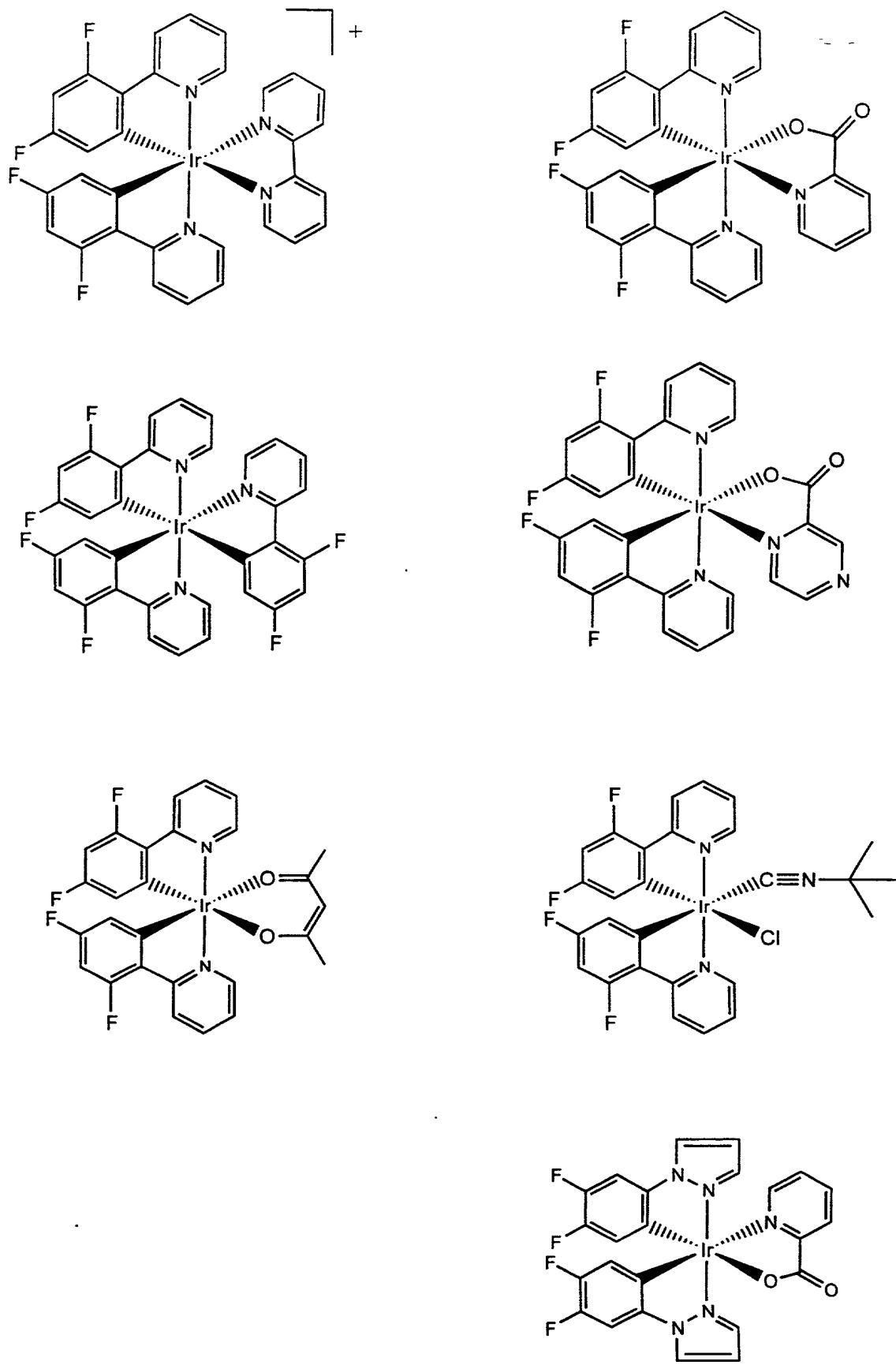
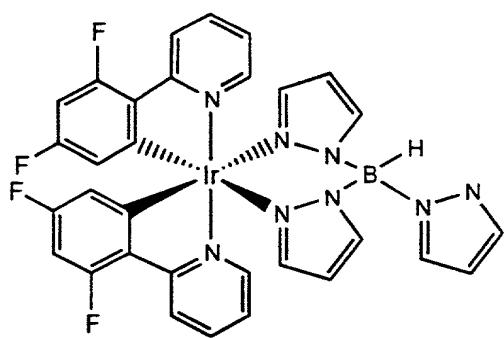
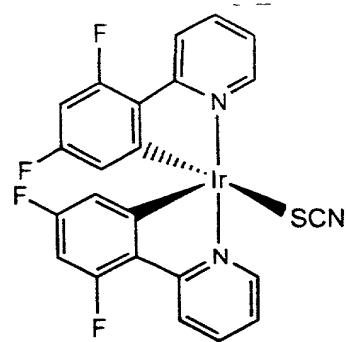
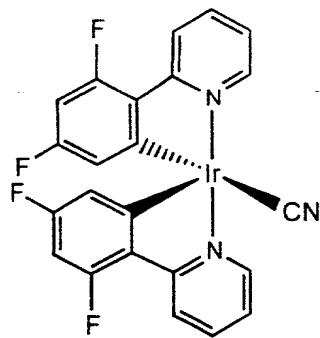
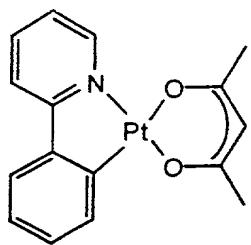


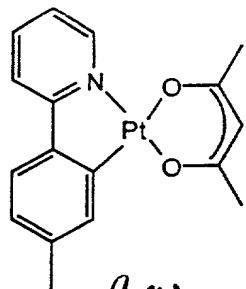
Figure 8d





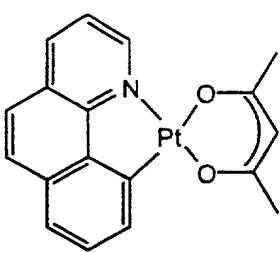
9(a)

(ppy)Pt(acac)



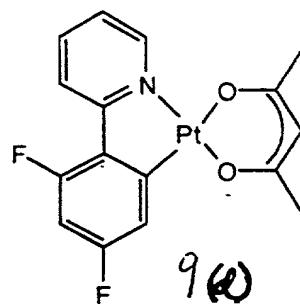
9(b)

(tpy)Pt(acac)



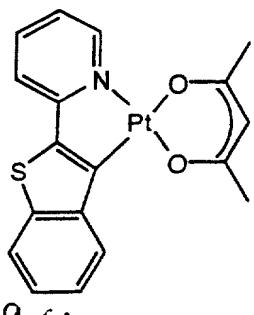
9(c)

(bzq)Pt(acac)



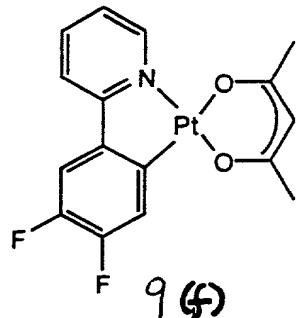
9(d)

(4,6-F₂ppy)Pt(acac)



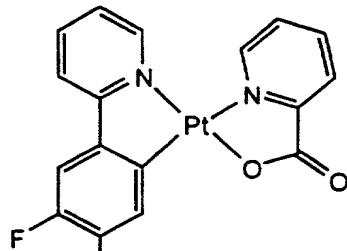
9(e)

(btp)Pt(acac)



9(f)

(4,5-F₂ppy)Pt(acac)



9(g)

(4,5-F₂ppy)Pt(pico)

Figures 9(a) - 9(g)

Figure 10: This Emission spectrum shows the spectra of both $\text{Pt}(\text{ppy})_2$ and $\text{Pt}(\text{ppy})_2\text{Br}_2$. The former gives green emission, partly from MLCT transitions, and the latter gives blue emission, predominantly from a triplet $\pi-\pi^*$ transition. The structure observed for the $\text{Pt}(\text{ppy})_2\text{Br}_2$ spectrum is consistent with ligand centered emission. The luminescent lifetimes for the two complexes are 4 and 150 μsec .

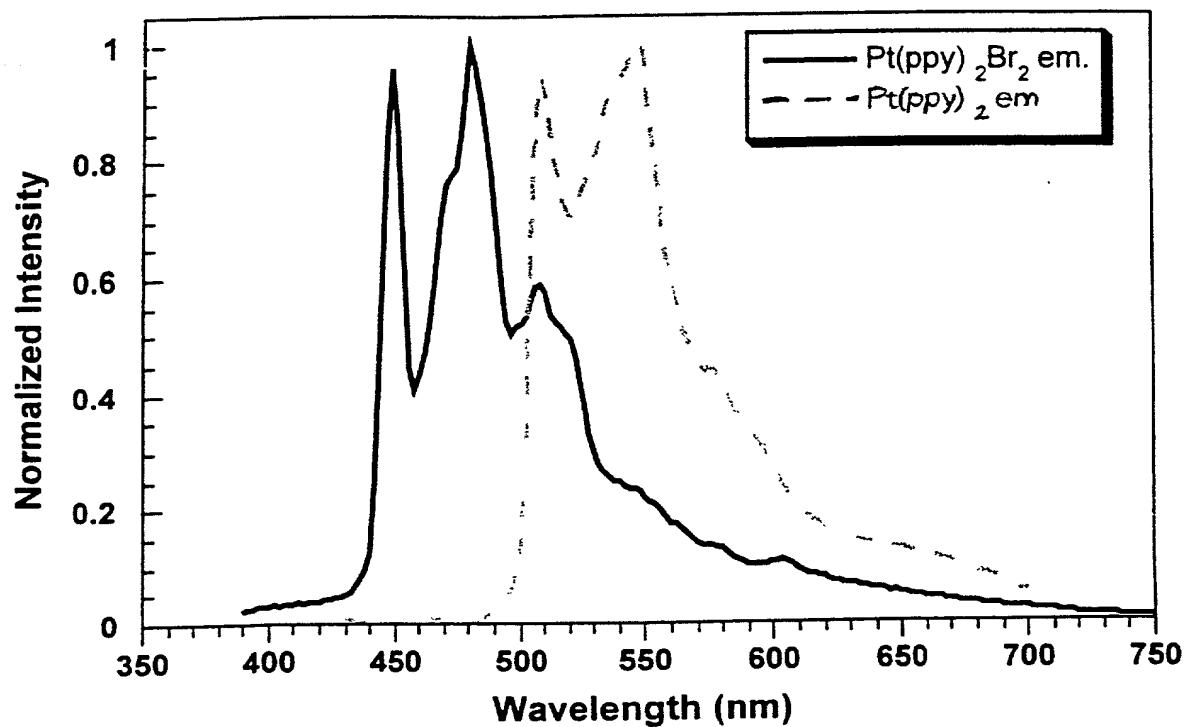


Figure 10

Figure II: This plot shows the emission spectra of (ppy)AuCl₂ and (ppy)A 2,2'-biphenylene. Both emit from ligand triplet π-π* transitions.

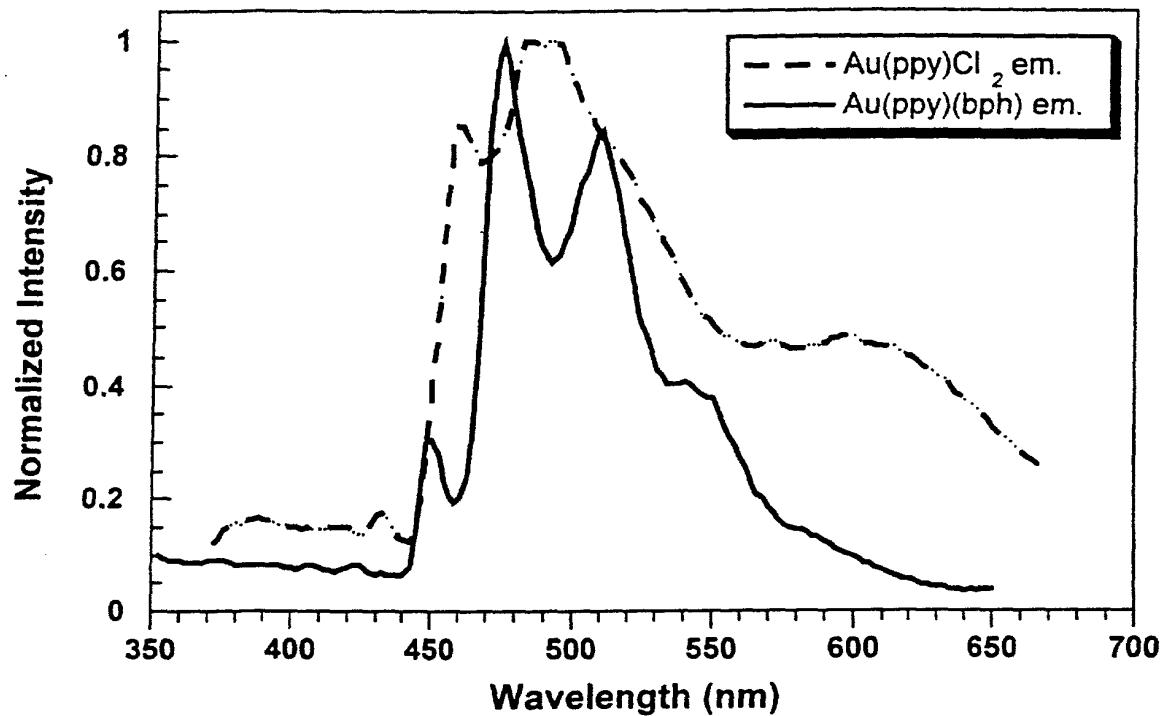


Figure II

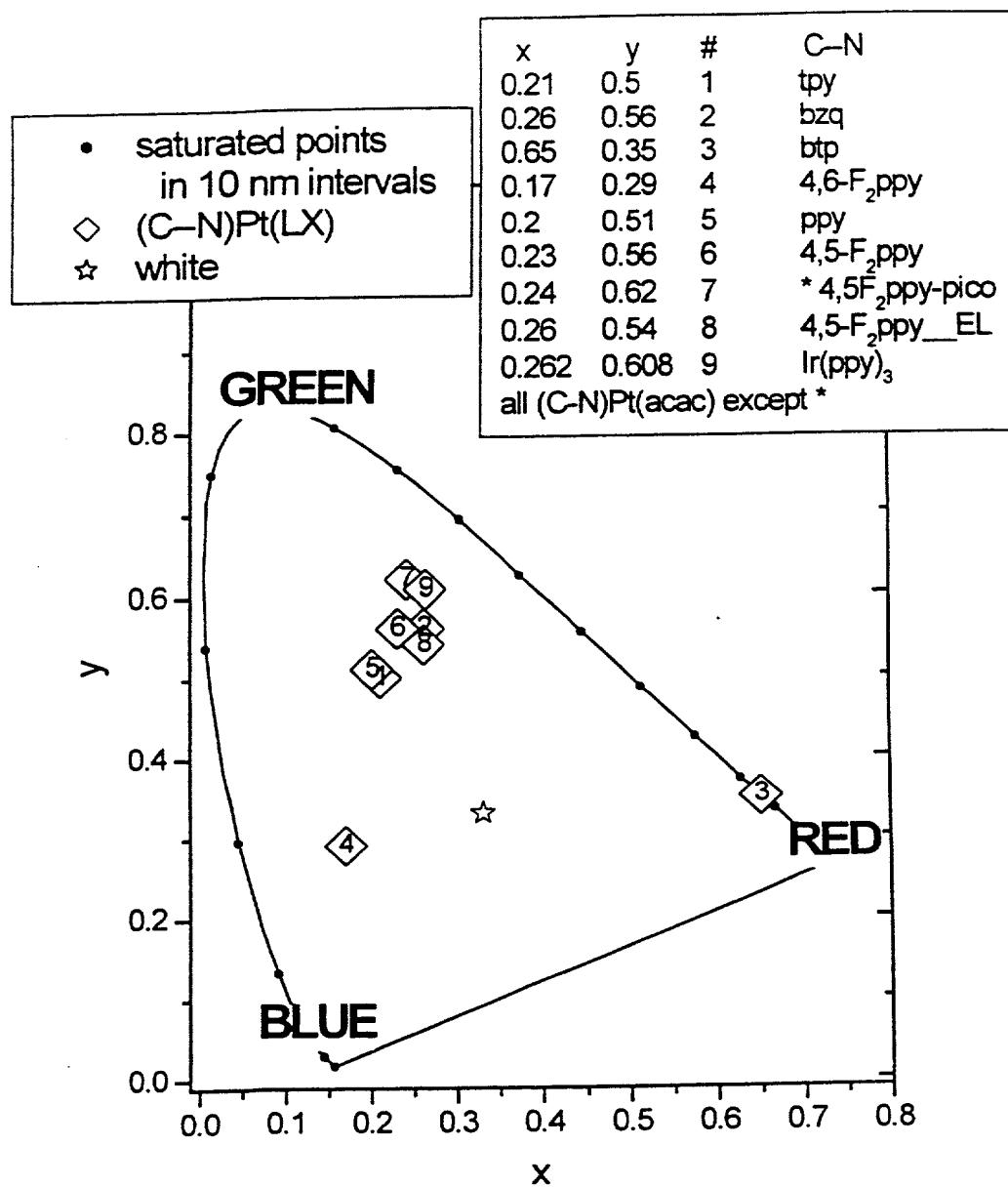


Figure 12

(4,6-F2PPY)Pt(acac)

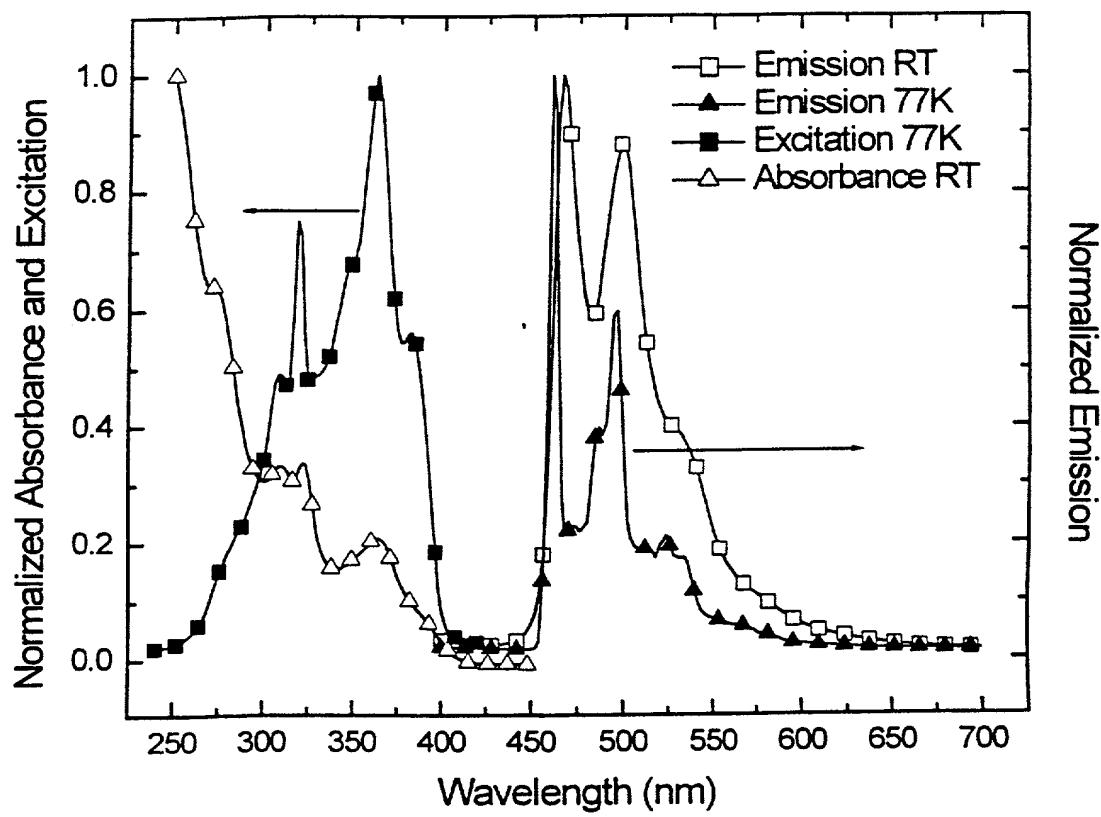


Figure 13

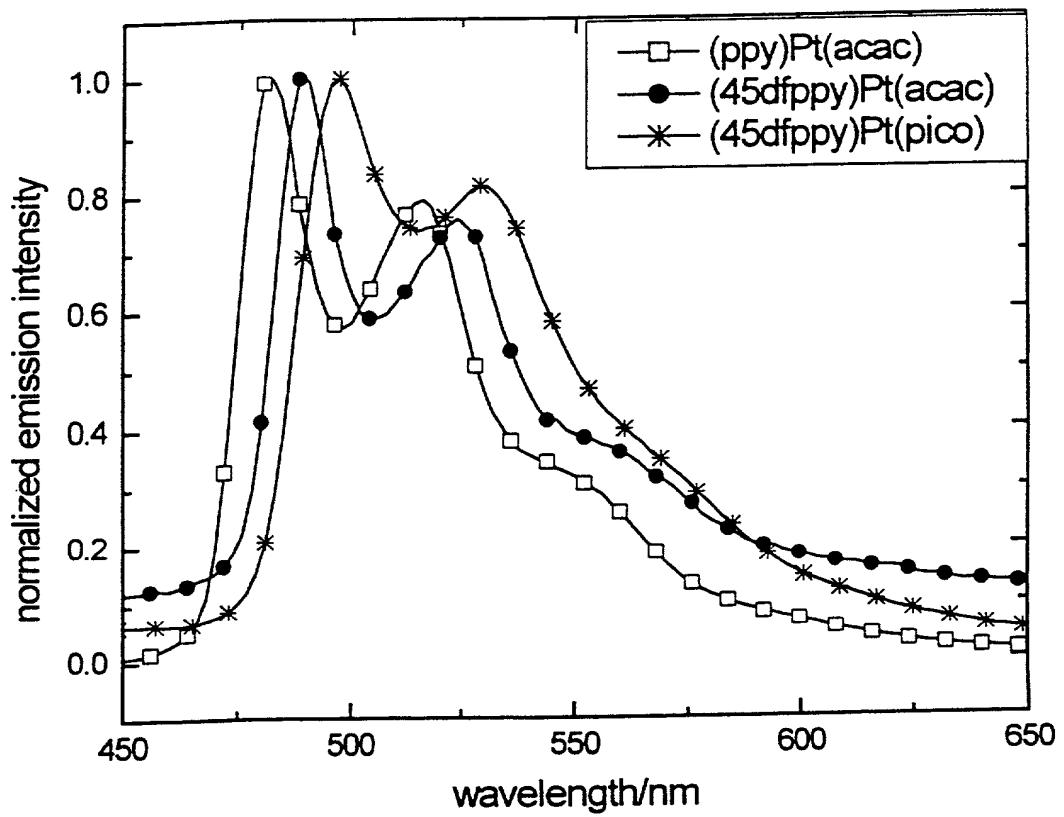


Figure 14

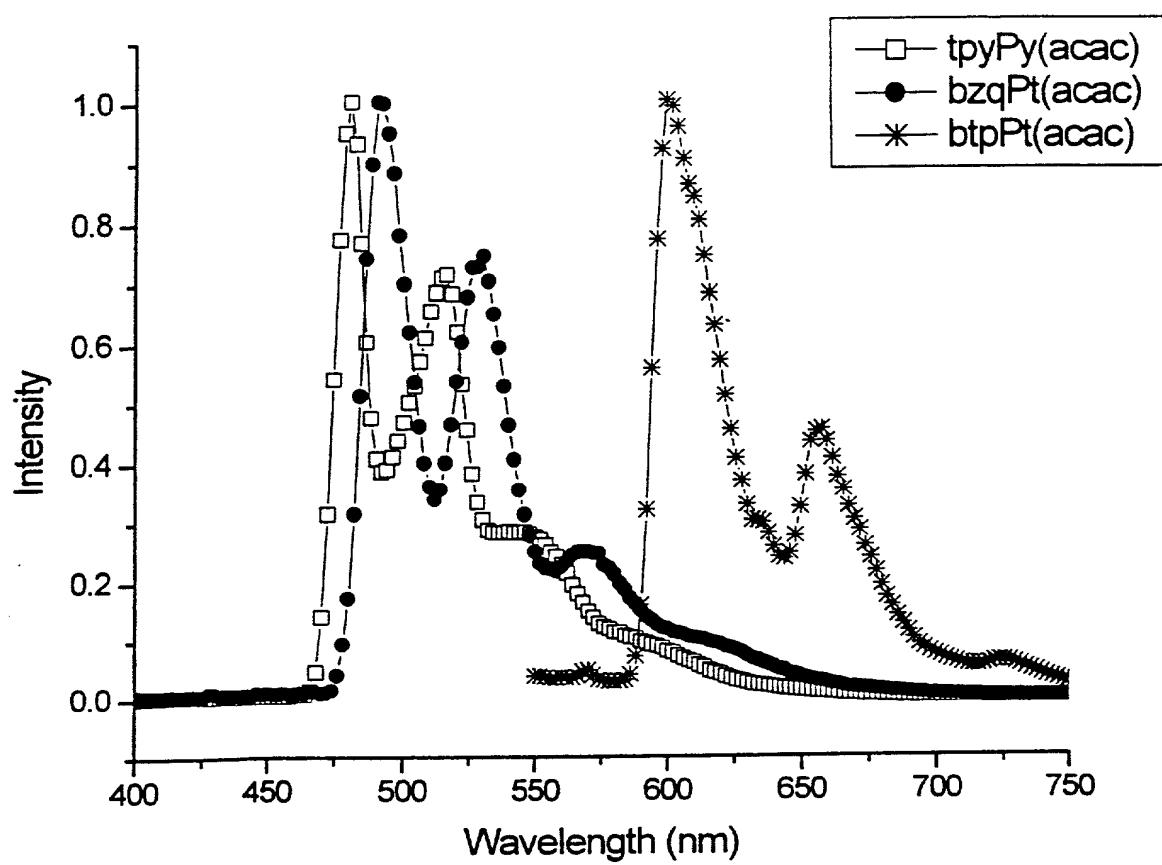


Figure 15

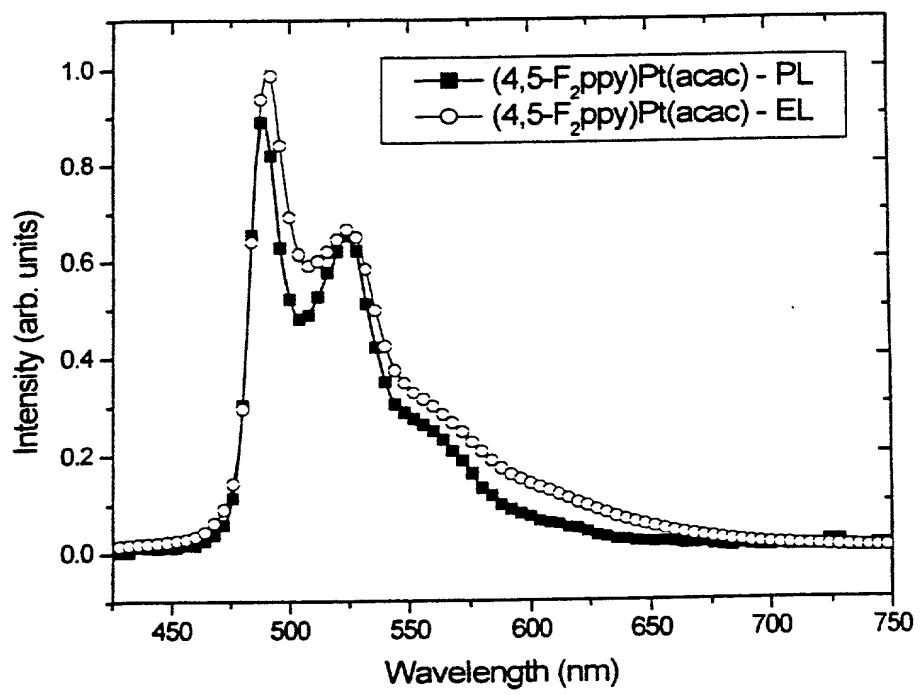
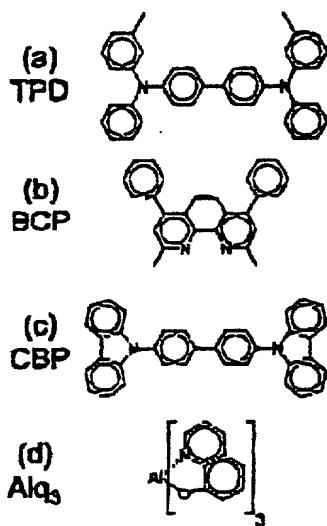


Figure 16

FIG. 17

PRB 62

HOSTS



GUESTS

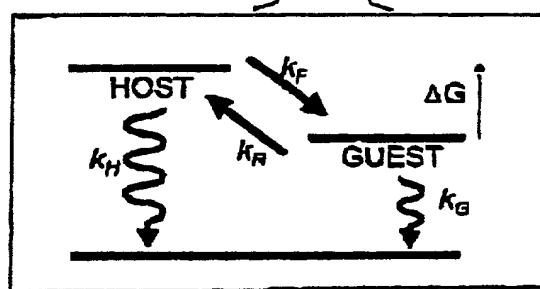
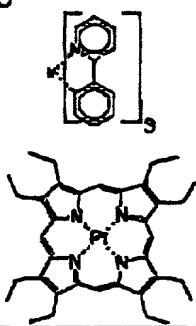
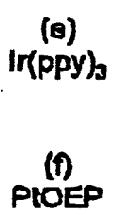


FIG. 18

PRB 62

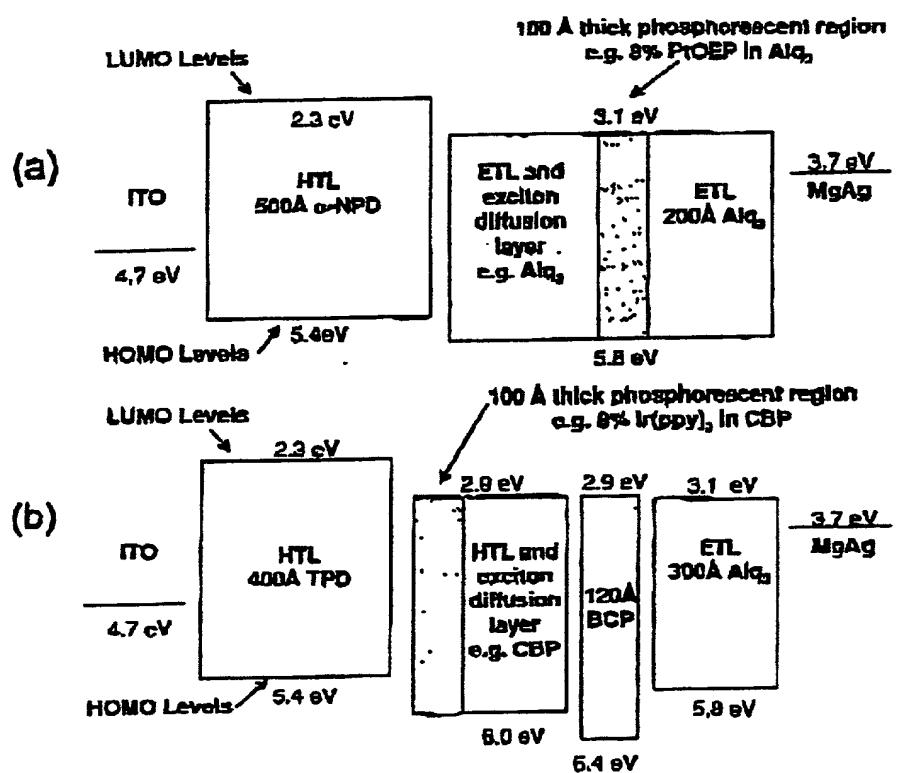


FIG. 19

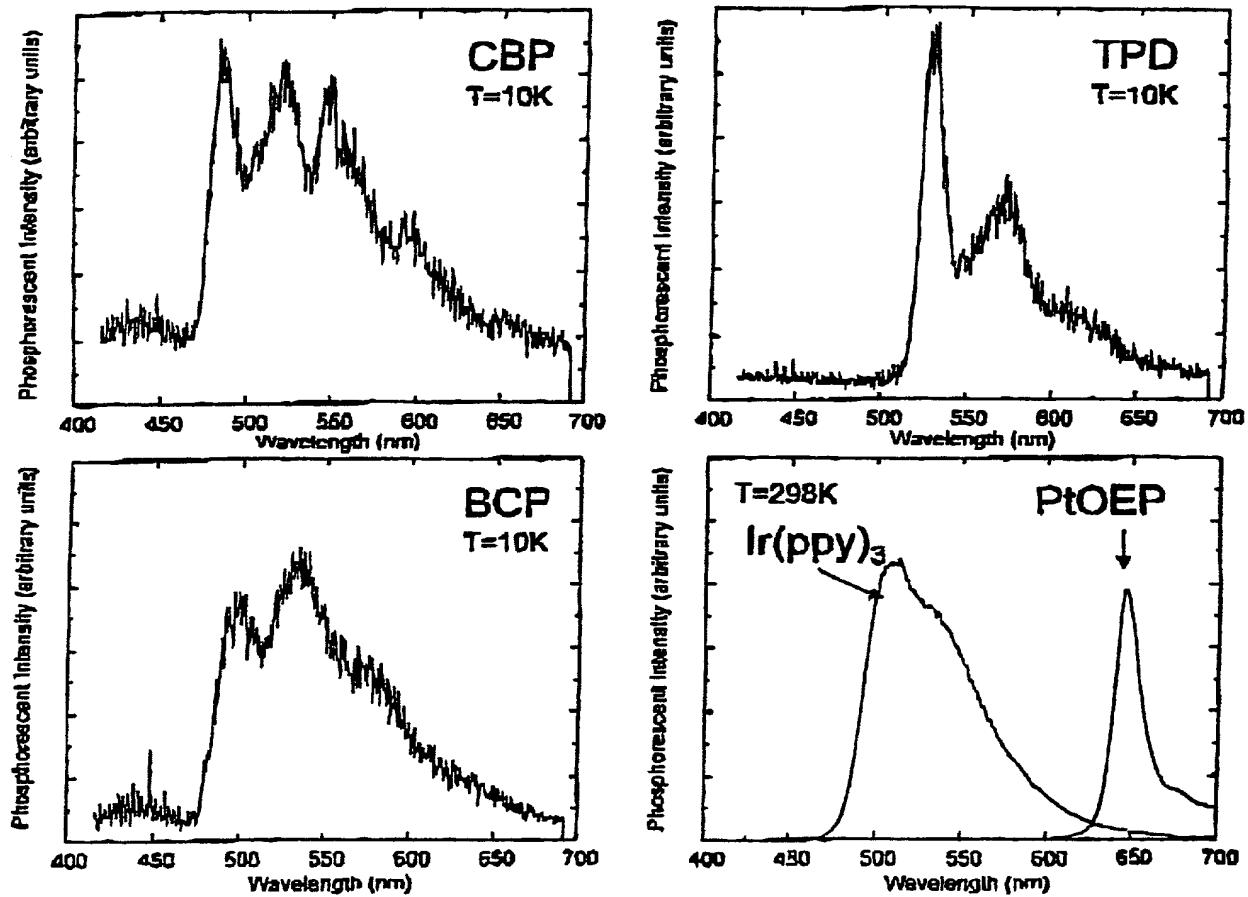


FIG. 20

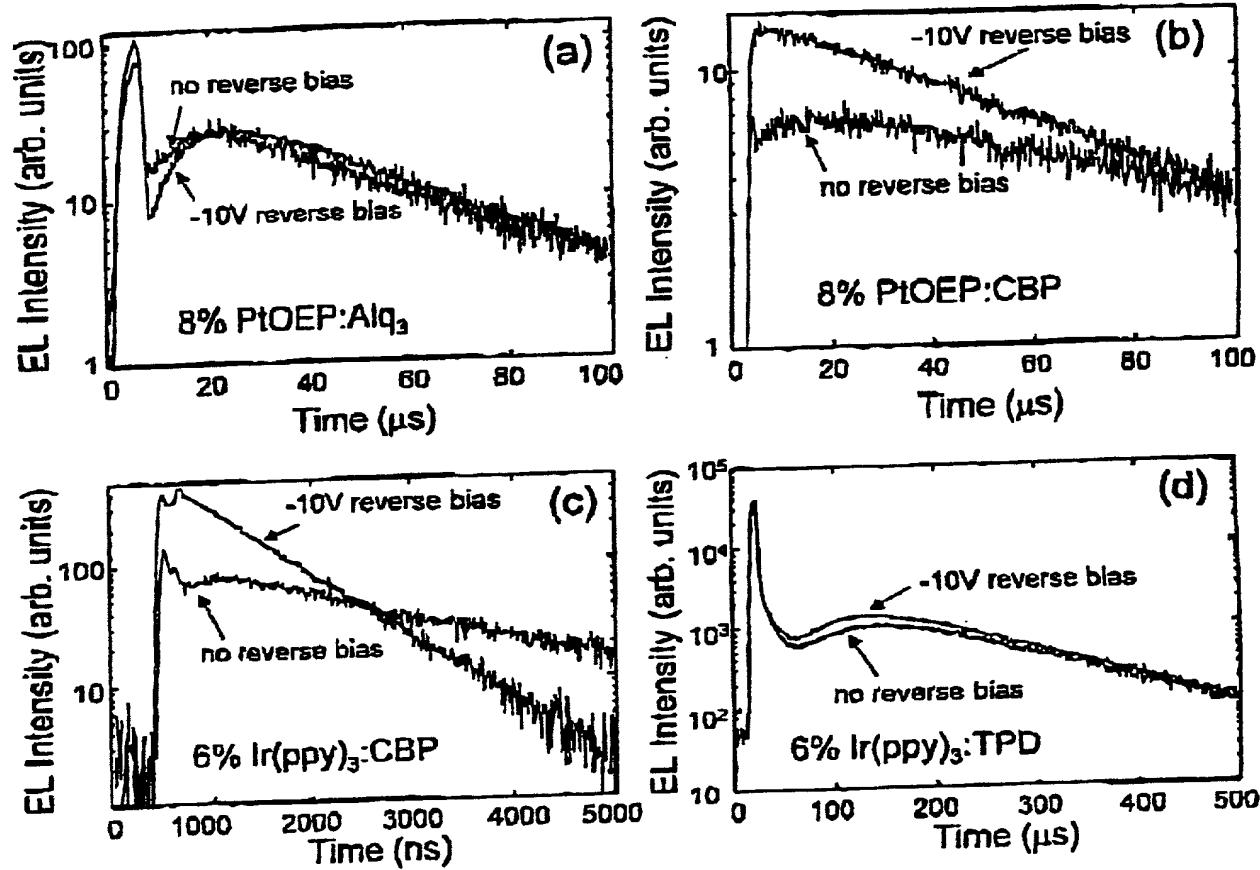


FIG. 21

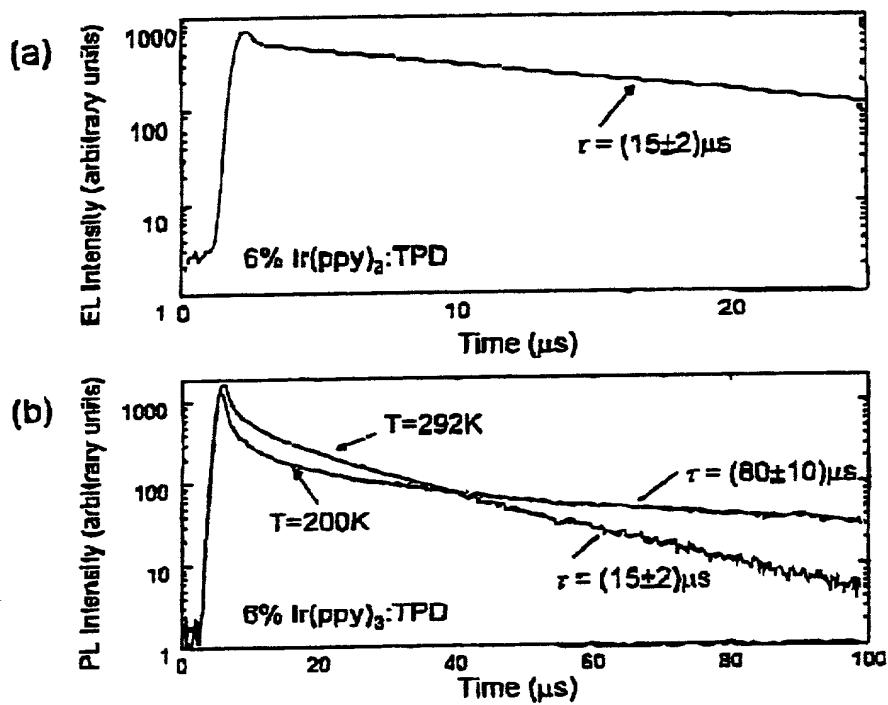


FIG. 22

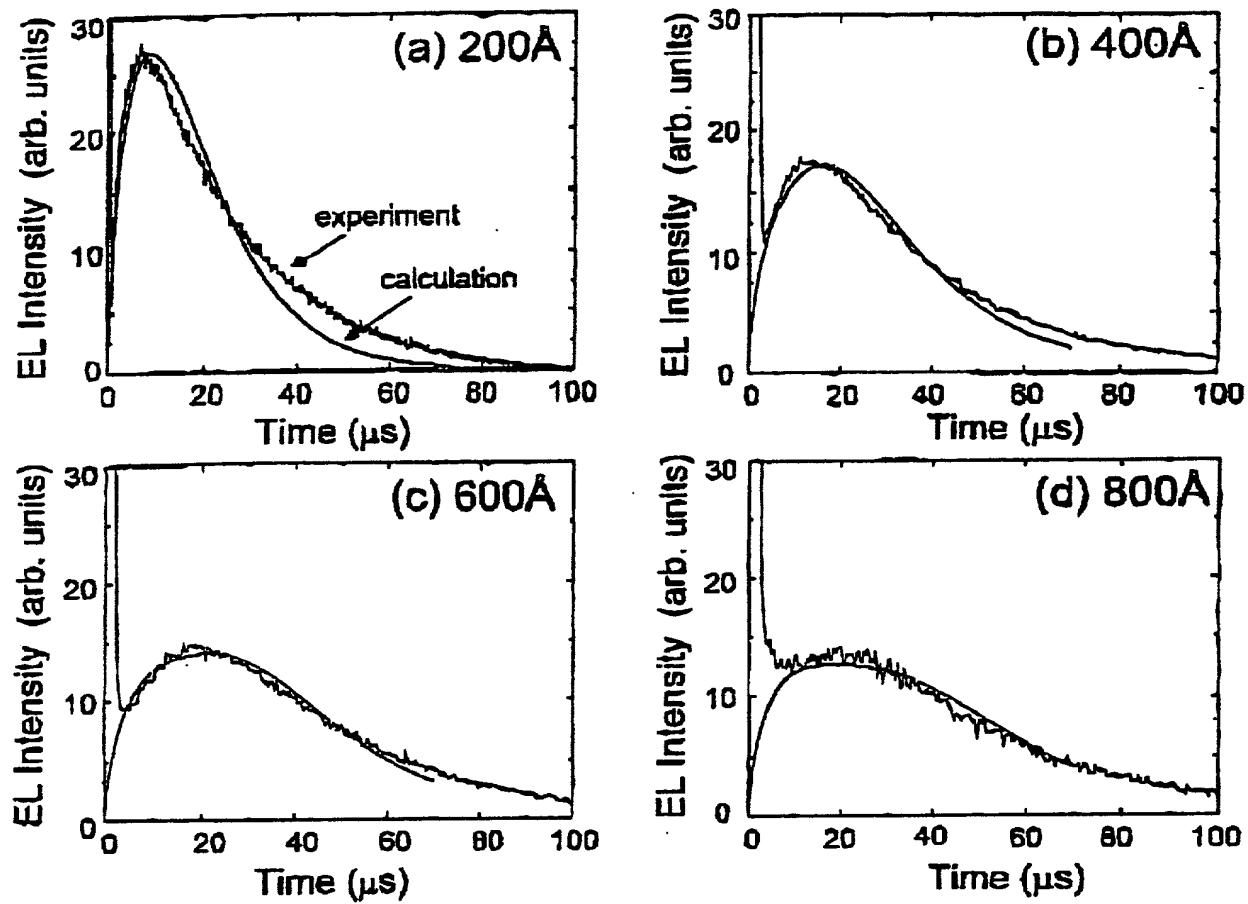


Fig. 23

